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MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

Original Communications.

TWO CASES OF ACUTE SPINAL PARALYSIS.*

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We had during the past year two cases of acute spinal paralysis in neighbouring beds, which exhibited many interesting features. The first, although resembling in many points Landry's ascending paralysis, presented some symptoms which distinguished it from that disease.

P. H., æt. 23, dry goods clerk, was admitted to the hospital Dec. 21, 1891. He was quite well on Thursday, Dec. 18th, and slept well that night. After waking on Friday morning on rubbing his toes against the blanket, he noticed a tingling numbness which he described as a sensation similar to that caused by wearing tight boots or by a blow on the funny bone. On getting out of bed he felt a peculiar stiffness in the calves of the legs, which continued during the day. While walking to the store in the morning he felt a tingling and numbness in his fingers—which he then supposed was due to cold. These peculiar sensations did not pass off when he resumed work—he was engaged making up parcels to be taken by the porter. Between 9 and 10 o'clock that morning, having a spare hour, he and another employee commenced a game of cosolough, in which checkers are flipped by the middle and fore-finger to the centre of the board. When patient attempted he could not flip them for want of power in his fingers. He also experienced a difficulty in tying parcels. Notwithstanding these symptoms, he continued at work until closing time. He then walked home, a distance of about three-quarters of a mile, ate his supper as usual and slept well that night. On the following morning (Saturday) he was unable to dress, and went back to bed. At ten o'clock he tried again to get up, but failed. At noon he was helped in dressing, walked to the water closet in the back yard and, when returning, lost all power of his limbs, and fell down. He was assisted to the house and placed in bed, and remained in this condition until the evening, when he was seen by a doctor. His temperature was then 100°. On Sunday he was sent to the hospital.

These notes were taken on Monday. The patient is well nourished and presents a healthy appearance. There is motor paralysis of both upper and lower extremities—more marked on the left than on the right side. The left arm could only be moved by the shoulder muscles. The fingers of the right hand could not be moved, but the patient had power to produce slight contractions in the extensors and flexors of the forearm. The lower extremities below the knees were completely paralyzed. He was able, however, to flex the thigh, the right more than the left.

The muscles of respiration and deglutition were slightly affected. The superficial reflexes were increased, with the exception of the epigastric, which was absent. The patellar tendon reflex was absent. The faradic current showed electro-contractility normal in the upper but diminished in the lower extremity. The pupils are slightly dilated, but respond equally to light. There is no disturbance of tactile sensation, in fact it is very acute. He has a slight feeling of numbness but no pain. There is some soreness over the muscles of the calf, but no tenderness over the nerve trunks. There is no mental disturbance, no headache, vertigo, nor loss of memory. There is no loss of power over the bladder or rectum. The stomach is somewhat dilated and the bowels constipated.

The respirations are 28 to the minute, somewhat laboured; pulse 80°, temp. normal; heart hypertrophied. The apex beat downwards and towards the left. The pulmonary second sound is accentuated, and a distinct systolic murmur is heard at the apex. Urine slightly high colored, Sp. Gr. 1032. No albumen, sugar or bile. Chlorides in excess. Urates and phosphates abundant.

Dec. 31st.—During the ten days since admission the symptoms have gradually become more

*Read before the Toronto Clinical Society, Jan. 1893.

aggravated. He has complained of dyspnœa and has had spells of gasping for breath. The breathing, however, is not abdominal, as the ribs move freely. He has been much troubled with insomnia. For the last few days he has been lifted into a chair and allowed to remain there two or three hours. In this way he experiences much relief. The superficial reflexes, which were at first increased, are now absent. There is no electro-contractility below the knees and elbows. The temperature has been normal since the first day after his admission. He has had at all times complete control over both the bladder and rectum. The treatment has consisted principally in the administration of bromide and ergot. He has to-day, for the first time, expressed himself as feeling better.

Feb. 1st.—During the month of January patient's general health improved steadily, but the paralysis remained, with perhaps a slight improvement. A moderate amount of wasting has taken place in the muscles of the legs and forearms. Electro-contractility is absent over these muscles. The reaction by the galvanic current varies in the different muscles. As a general rule, the irritability is increased. The qualitative reaction in some is normal, while in others it is abnormal.

April 1st.—Patient has continued to improve steadily during February and March. His general health is now good and all the functions are normal. The difficulty of breathing and swallowing entirely passed away six weeks after his admission. He is able to flex and extend the fingers of both hands, can draw his arms across the chest by means of the pectoral muscles, He is also able to adduct, flex and rotate the the thighs, but he cannot stand or walk. The muscles of the back are becoming stronger. Sexual desire which was absent in the early part of the illness is now returning. There is marked hyperidrosis. The electro-contractility is slowly returning and the galvanic reaction is now of normal quality. During his recovery there has been an improvement in groups of muscles rather than in those of a whole extremity.

June 1st.—Patient continues to improve. The muscles of the extremities are becoming more developed, but the patient is still unable to stand alone. The treatment has latterly consisted of daily massage and the use of the galvanic and faradic currents. The prospect is that the patient will recover perhaps completely. There is no wasting or settled paralysis in any particular extremity.

Cerebral disease can at once be excluded by the complete absence of linear symptoms. A lesion in the brain which would produce such extensive loss of power, would of necessity be accompanied by very grave symptoms. The electrical reactions would also differ from those shown in this case. Functional paralysis is positively excluded by the changes in the electrical reactions. The diseases of the neuro-spinal system which we would naturally consider are anterior polio-myelitis, acute central myelitis, transverse myelitiis, multiple neuritis.

Transverse myelitis might at once be excluded, as in that case bladder and bowel symptoms would be present, and there would be more or less anæsthesia. As the lesion would require to be high up in the cord, tendon reflexes would be increased, and electrical reaction would be exaggerated.

In acute central myelitis there would be more or less loss of sensation and some disturbance of the function of the bladder and bowels.

Was this a case of Landry's paralysis? For the first week I was inclined to think it might be an example of that disease. The slightly elevated temperature which existed during the first day or two was not, in my opinion, sufficient to exclude Landry's paralysis, as the fever might have arisen from some inter-current affection. When, however, the quantitative and qualitative changes in the electrical reactions became evident, I could no longer consider it a case of that disease. Diphtheritic paralysis is also excluded. There was no previous history of diphtheria, nor did the disease commence as one of diphtheritic paralysis.

It is scarcely possible to consider this a case of multiple neuritis. There were very few sensory disturbances, nor was there any tenderness over the nerve trunks. If it were possible to have such an extensive lesion of the nerve trunks and the sensory fibres at the same time not affected, this might be put under the head of neuritis. There is much less atrophy than in the majority of cases of anterior polio-myelitis, and the case has not followed the ordinary course of that disease.

Taking the whole case into consideration, I am inclined to think that the anterior cornua of the gray matter have been affected and the motor fibres leading from the multipoliar cells.

Before further discussing the pathology, I shall read you the history of my second case.

R. D., æt. 57, was admitted to the hospital, March 28th, suffering from severe pains, and lameness of the back, which we thought was probably of a rheumatic character. In February the patient had a severe attack of la grippe, from which he did not make a complete recovery. For some years he has been employed in a distillery and has taken a glass or two of whiskey a day. He is of full habit and has a marked acne rosaceæ. For the last few years he has been employed as an engineer. There is nothing of importance in his family history. Patient has suffered for the last six years with pain and stiffness of the back. This became much worse after the attack of la grippe, so that he was compelled to enter the hospital. After his admission various anti-rheumatic remedies were given, such as soda salicylate, alkalies, salol, etc., without any success. Hypodermic injections of $\frac{1}{8}$ gr. of pilocarpine were then ordered to be given each evening. Profuse perspiration was induced and the pain ank soreness of the back very much relieved. After four injections patient was seized with an acute attack of diarrhœa accompanied by pharyngitis. The temperature ranged between 99° and 100°. Pulse increased in frequency. The hyopdermic injections of pilocarpine were discontinued as the pain was relieved and it was thought he might have taken cold after the heavy sweating. Under medicinal and dietetic treatment he recovered so that at the end of a week he seemed to be in his usual health.

On April the 28th, three or four days after his recovery from the diarrhœa, and ten days after the last hypodermic injection of pilocarpine, an entirely new set of symptoms appeared. He felt first a tingling in the fingers of both hands, which was followed by pain which kept him awake during the night. On the following day, April 29th, the pain had disappeared, leaving a smarting sensation in the hands and arms, extending as far as the shoulders. In the afternoon he felt a tingling in the toes, extending upwards to the knees. This morning in attempting to rise he found he could scarcely stand up, owing to the weakness of his legs. He was not able to go to the bath-room without assistance. To-night he is unable to stand up, or to put his hands to his head. It was neceessary to use the catheter to empty the bladder.

May 1st—All motor power is completely gone. Paralysis of the bladder; urine normal in character. I visited the patient in the afternoon and found him quite sensible and free from pain. There was complete paralysis of the upper and lower extremities, also of many of the trunk muscles. Respiration was altogether diaphragmatic. Sensation was apparently normal. During the evening the signs of bulbar paralysis became manifest; respiration was impeded, and deglutition became difficult; coma ensued, and he died shortly after midnight. There was almost complete absence of sensory disturbances during the illness.

I regret very much that, owing to the short duration of the illness, and to my being otherwise engaged, no electrical examinations were made. A post-mortem was made within twelve hours after death. Upon opening the spinal canal the meninges were found normal. There was no excess of cerebro-spinal fluid. After removing the cord and making cross sections, the grey matter was found to present a distinctly pink color, which I was able to demonstrate to the students at the time. The grey matter of the lumbar and cervical regions were principally affected. Nothing abnormal was found in the spinal column; nor was there anything special to note about the internal organs. Upon microscopical examination minute extravasations were found in the anterior cornua, both in the cervical and lumbar regions. Inflammatory exudation and destruction of nerve cells was made evident. In all the sections the inflammatory process appeared at its greatest intensity in the anterior cornua. We have, then, in this case, an acute myelitis affecting principally the grey matter, and especially the anterior cornua.

It was a singular coincidence that this patient occupied the next bed to that of the patient I just described. So far as the clinical history goes, there is much similarity between the two cases, and it is not difficult to believe that both may have been due to the same pathological process, but that in the last the inflammatory action was more severe and more extensive than in the first. Beyond the difference in intensity, the symptoms in both cases were very similar. In the second there was a paralysis of the bladder, a condition not present in the first.

Now, what is the nature of this pathological

process? The most reasonable conclusion is that there existed in both cases a toxine in the blood, which especially attacked the cord, in all probability the result of bacterial invasion. This toxic agent, acting similarly to such medicinal agents, as strychnine, etc., attacked the cord, thus producing the grave condition already described.

Friedlander, in a recent article, expresses the opinion that Landry's acute ascending paralysis, acute anterior polio myelitis of the adult, acute bulbur paralysis, some cases of Basedow's disease, tetany, diabetes insipidus, and diabetes mellitus, are of rheumatic origin. In these cases it would certainly appear that there existed some relation between rheumatism and the pathological processes which produced such grave symptoms.

In the first a diseased condition of the mitral was present, which was probably of rheumatic character, and in the second, obstinate rheumatic pains existed in the back for some weeks previous to the onset of the fatal attack. I would certainly treat similar cases with soda salicylate, hoping in that way to do more good than by a system of medication directed to the condition of the spine.

A CASE OF CLUB FOOT—OPERATION.*

BY A. B. WELFORD, M.D., WOODSTOCK, ONT.

In April, 1891, L. H., a young man 21 years of age, presented himself at my office with the request that I should "cut his foot off" for a deformity, which was a great hindrance to his calling, a machine wood carver.

He gave the following history:—When three years of age he was playing in the grass and accidentally ran against the sharp edge of a scythe, severing the muscles on the outer part of the leg below the knee, inflicting a wound several inches long. There had been no attempt to unite the wound, as the family physician feared "lock jaw." The wound was allowed to heal by granulation leaving the ends of the muscles and nerves separated and their functions impaired.

A few months after the wound had healed the foot began to gradually turn in, until it had become permanently deformed and the bones ossified in their abnormal position. Having persuaded him not to have it removed, as that could easily be done later on, the operation known as Phelp's was proposed and done on April 13th, 1891.

After the application of Esmarch's bandage, and the usual aseptic precautions had been taken, an incision from a point a short distance in front of the tip of the internal malleolus extending downwards to the inner margin of the sole of the foot, dividing everything down to the bone, in succession, the Plantar tissue, tibialis anticus tendon, tibialis posticus flexor communi digitorum, flexor longus pollicis, the belly of the flexor brevis digitorum, the abductor pollicis, the Plantar fascia, the long Plantar ligament, the deltoid ligament, the nerves and both external and internal Plantar arteries. There was so much tension of the skin of the sole that the original incision had to be enlarged to the external edge of the foot. The vessels being ligatured with cat-gut an attempt was made to rectify the position, which was found only partially successful. The head of the astragalus and almost all the scaphoid was chisled out in the shape of a wedge, the base being external. It was still found impossible to get the foot into any decent shape, for it seemed the greatest hindrance to the rectification was on the outside; consequently an incision was made from a point a little in front of the external malleolus downwards about two inches, and a large wedge consisting of a piece of the os calcis and cuboid bones was removed, the deformity being much more easily remedied now. Although this is somewhat a departure from Phelps' operation, the latter was followed until it was found that it could not be a success without the external osteotomy; the tendo-achilles of course being cut.

In fact I believe that in this particular case as good a result could have been obtained without any bone being removed from the internal side at all (*i. e.* from the astragalus and scaphoid) but simply to have dis-articulated and done the osteotomy on the outside through the anterior part of the os calcis and posterior part of the cuboid. Over Skede's dressing and sublimated gauge, a plaster bandage was applied before the removal of Esmarch's bandgage. The temperature never rose above 100°, and that for only two days, and pulse not above 90'.

On April 22nd, thirteen days after the oper-

*Read before the Ontario Medical Association, Toronto, June 1st, 1892.

ation, a profuse hæmorrhage took place, the patient being perfectly blanched and in a condition of syncope. On 11th May, twenty days after the last hæmorrhage, and one month after operation, another severe hæmorrhage took place. The cast was at once removed and the hæmorrhage was found to come from the posterior tibial artery which may have been accidently punctured during the tenotomy of the tendo-chilles. Or ulceration may have occurred from the great amount of tension that it was subjected to; the vessel was ligatured and the bleeding ceased. The large gaping wound was found to be well filled by organization of the blood clot, and nearly skinned over. In ten days more the wound had entirely healed; he now walks without any support, and only a slight perceptable limp, the result being highly satisfactory.

The somewhat different proceedure in this case, fro n that ordinarily described as Phelp's operation, and the secondary hæmorrhage occurring so long after the operation, I thought might be sufficiently interesting as to afford me an excuse for having read this paper before this Association.

Selected Articles.

CERTAIN ORGANIC EXTRACTS: THEIR PREPARATION AND PHYSIOLOGICAL AND THERAPEUTICAL EFFECTS.

Since the experiments of Brown-Séquard, more than three years ago, observers in various parts of the world have been engaged in similar investigations, not only with the juice of the testicles, but with extracts obtained from other glands of the body. So far, however, as I am aware, no systematic researches have been undertaken along the line of those, the details of which I am about to give, and with which I have been occupied almost continuously since the summer of 1889.

Organic beings possess the power of assimilating from the nutritious matters they absorb the peculiar pabulum which each organ of the body demands for its development and sustenance. The brain, for instance, selects that part which it requires, the heart the material necessary for its growth and preservation, and so on with the liver, the lungs, the muscles, and the various other organs of the body. No mistake is ever committed. The brain never takes liver nutriment, nor the liver brain nutriment; but each selects that which it requires. There are, however, diseased conditions of the various organs in which this power is lost or impaired, and as a consequence, disturbance of function, or even death itself, is the result.

Now, if we can obtain the peculiar matter that an organ of the body requires and inject it directly into the blood, we do away with the performance of many vital processes which are accomplished only by the expenditure of a large amount of vital force.

Let us suppose a person suffering from an exhausted brain, the result of excessive brain-work. Three hearty meals are eaten every day, but, no matter how judiciously the food may be arranged, the condition continues. Now, if we inject into that person's blood a concentrated extract of the brain of a healthy animal, we supply at once the pabulum which the organ requires. Then, if under this treatment the morbid symptoms disappear, we are justified in concluding that we have successfully aided Nature in doing that which, unassisted, she could not accomplish.

Taking the brain as a type of the process employed—and it is not materially varied with the other organs of the body—it is as follows:

The whole brain of the ox, after being thoroughly washed in water acidulated with boric acid, is cut into small pieces in a mincing machine. To one thousand grammes of this substance placed in a wide-mouthed, glass-stoppered bottle, I add three thousand cubic centimeters of a mixture consisting of one thousand cubic centimeters each of a saturated solution of boric acid in distilled water, pure glycerin, and absolute alcohol. This is allowed to stand in a cool place for at least six months, being well shaken or stirred two or three times a day. At the end of this time it is thrown upon a porous stone filter, through which it percolates very slowly, requiring about two weeks for entirely passing through; the residue remaining upon the filter is then inclosed in several layers of aseptic gauze and subjected to very strong pressure, the exudate being allowed to fall upon the filter and mixed with a sufficient quantity of the filtrate to cover it. When it has entirely filtered it is thoroughly mixed with the first filtrate, and the process is complete.

During the whole of this manipulation the most rigid antiseptic precautions are taken. The vessels and instruments required are kept in boiling water for several minutes, and are then washed with a saturated solution of boric acid. Bacteria do not form in this mixture under any circumstances, but it is necessary to examine it from time to time microscopically in order to see that no foreign bodies have accidentally entered. Occasionally, from causes which I have not determined, the liquid becomes slightly opalescent from the formation of a flocculent precipitate. This is albuminous in its character. It sometimes takes place in a portion of the extract kept under apparently identical conditions with other portions

that remain perfectly clear. It is certainly not an essential constituent. It can be entirely removed by filtration through Swedish filtering paper, previously rendered antiseptic, without the filtrate losing any of its physiological or therapeutical power.

Five minims of this extract diluted at the time with a similar quantity of distilled water constitute a hypodermic dose.

The most notable effects on the human system of a single dose are as follows, though in very strong, robust and large persons, a somewhat larger dose is required, never, however, exceeding ten minims:

1. The pulse is increased in the course of from five to ten minutes, or even less in some cases, by about twenty beats in a minute, and is rendered stronger and fuller. At the same time there is a feeling of distension in the head, the face is slightly flushed, and occasionally there is a mild frontal, vertical or occipital headache, or all combined, lasting, however, only a few minutes.

2. A feeling of exhilaration is experienced, which endures for several hours. During this period the mind is more than usually active, and more capable of effort. This condition is so well marked that if the dose be taken at about bedtime wakefulness is the result.

3. The quantity of urine excreted is increased, when other things are equal, by from eight to twelve ounces in twenty-four hours.

4. The expulsive force of the bladder and the peristaltic action of the intestines are notably augmented—so much so that in elderly persons in whom the bladder does not readily empty itself without considerable abdominal effort, this action is no longer required, the bladder discharging itself fully and strongly, and any existing tendency to constipation disappears, and this to such an extent that fluid operations are often produced from the rapid emptying of the small intestine.

5. A decided increase in the muscular strength and endurance is noticed at once. Thus I found in my own case that I could "put up" a dumb bell weighing forty-five pounds fifteen times with the right arm and thirteen times with the left arm, while after a single dose of the extract I could lift the weight forty-five times with the right arm and thirty-seven times with the left arm.

6. In some cases in elderly persons an increase in the power of vision is produced and the presbyopic condition disappears for a time.

7. An increase in the appetite and digestive power. Thus a person suffering from anorexia and nervous dyspepsia is relieved of these symptoms, temporarily at least, after a single dose hypodermically administered.

These effects are generally observed after one hypodermic injection, and they continue for varying periods, some of them lasting for several days. In order that they may be lasting, two doses a day should be given every day or every alternate day as may seem necessary, one in the morning and one in the afternoon, and kept up as long as the case under treatment seems to require. The most notable effects are seen in the general lessening of the phenomena accompanying advancing years. When some special disease is under treatment the indications for a cessation of the injections will be sufficiently evident either by an amelioration or cure or failure to produce these results.

To the substance obtained in the manner mentioned and held in solution, I have given the name of cerebrine as the one, in view of its origin, most appropriate.

I have employed the solution of "cerebrine" with decided advantage in cases of nervous prostration—the so-called neurasthenia—in insomnia due to cerebral hyperæmia, in migraine, hysteria, general paresis, hebephrenia, and epilepsy. In these latter—two cases of the *petit-mal* variety—the effect has been so marked that I am not without the hope that cures will result, although I am not able as yet to speak positively on this point, the patients having been less than a month under treatment. In two cases of the *grand mal* the number of paroxyisms has been reduced more than one-half and greatly mitigated in severity. In six other cases, which were of long duration, I could perceive no curative effect.

In the case of general paresis no permanent therapeutic influence was apparent, though for several days the *delire de grandeur* was absent. In the case of hebephrenia, however, occurring in the person of a young lady eighteen years of age, the effect has been most happy, the symptoms entirely disappearing in a little more than a month's treatment.

In two cases of nervous prostration, the result of long continued emotional disturbance and in which there were great mental irritability, dyspepsia, physical weakness, loss of appetite and constipation, relief was rapidly afforded. In three other cases, in which the most notable symptom was functional cardiac weakness, the effect has been all that could have been desired. In these cases it was employed in conjunction with "cardine," the extract of the heart of the ox made in the manner already described.

It is not my intention at the present time to enter into a full discussion of this interesting subject, or to allude further to experiments in the treatment of other diseases which are not yet concluded. In the near future I shall enter more largely into the consideration of the subject in all its details. I may add, however, that I have used with excellent results, in cases in which it seemed to be indicated, the extract of the testicles of the bull and also that of the pancreas of the ox, and

these investigations also will be given to the profession at an early day.

It is alleged by some medical writers that there is no difference in the therapeutical effects of medicines whether they be taken directly into the blood by hypodermic injections or ingested into the stomach; but it is scarcely worth while to seriously combat this assertion. For, while it may be true that some substances are not altered by the gastric juice before they are absorbed into the system, it certainly is not true of many others, and it surely is erroneous as regards those of animal origin. Indeed it is, I think, doubtful if anything capable of being acted upon by the gastric juice, and of being absorbed into the blood gets into the system in exactly the same form in which it got into the stomach.

Thus the vaccine virus may be swallowed with impunity, as may also the poison of the rattlesnake and of other animals secreting toxic agents. Upon one occasion I gave a young dog, by the mouth, twenty minims of fresh rattlesake poison without its having the slightest perceptible effect upon him. I need not say that this quantity would have been sufficient to kill at least fifty men. Woorara, which is, as is well known, fatal to animal life when injected into the blood, is innocuous when taken into the stomach, and even those that do possess some action when swallowed exert this power in much less degree and require larger doses for it to be produced.

Relative to the animal extracts to which this communication refers, I have ascertained beyond question that if they are inclosed in capsules so as to reach the stomach without coming in contact with the mucous membrane of the mouth, they are absolutely without physiological or therateutical effect so far as can be perceived, even when given in quantities of a teaspoonful or more. But if dropped upon the tongue in double the quantity used for hypodermic injections, and allowed to remain in the mouth without being swallowed—thus avoiding the action of the gastric juice—they are absorbed, and exert a slower but still decided effect. If employed in this manner, three or four doses should be taken daily. Ten minims of the solution of cerebrin placed upon the tongue of a healthy person will cause acceleration of the pulse, flushing of the face, and slight headache in ten or fifteen minutes, together with the other phenomena I have mentioned.

I have expressed the opinion that the substance extracted from the brain and other organs is the material required for the nutrition of the corresponding organs of the body, but this is only a theory to which I am not in the slightest degree attached, though I think it physiological and plausible. It may be that the mixture of uric acid, alcohol and glycerine exerts a metamorphic influence and causes the formation of a ferment having the power of restoring to the weakened brain or other viscus the lost or impaired power of assimilation. However this may be, the facts remain unaltered.—Wm. A. Hammond, M.D., in *N. Y. Med. Jour.*

THEORY OF THE PHAGOCYTES.

Metchnikoff (*Le Bulletin Médical*) contributes an article on the theory of the phagocytes. He says these cells, that are capable of surrounding foreign bodies by means of active movements, are denominated phagocytes. Sometimes the entire individual is a phagocyte, capable of enclosing the foreign bodies; such are among the protozoans, the amebæ, the rhizopods, and the majority of the infusoria. In certain inferior animals—the sponges for example—the majority of the cells only are phagocytic. The question now arises, in the vertebrates, the mammiferæ, man, which are the cellular elements capable of manifesting these properties? These elements may be divided into two great groups according as to whether they are mobile or immobile. The *mobile* elements, the most numerous, are confounded with the leucocytes from which they must be distinguished.

The smallest leucocytes, the lymphocytes, which scarcely have the dimensions of the red corpuscles, have a large nucleus which the basic aniline colors stain with great intensity, and very little protoplasm which stains to a much less degree than the nucleus. These are found in large numbers in ganglia, in the corpuscles of the spleen and in the marrow of bone. They appear to be the young stage of leucocytes.

The mononuclear leucocytes, properly so-called, are distinguished from the preceding by large size and method of coloring; their protoplasm, abundant, is pretty well stained by the basic colors; their nuclei, rich in nuclear juice, take a color less pronounced than the nuclei of the lymphocytes; also the difference between the nucleus and the protoplasm is less marked. The nucleus, single, is often oval, may be lobulated and frequently reniform. These two categories only represent a small part of the leucocytes, about 20 per cent. in human blood. The great majority is formed by the polynuclear leucocytes (Ehrlich.) These are round or ameboid cells presenting a lobulated nucleus, but nearly always single; it is very rarely that they are truly poly-nuclear. In fact, the nucleus is composed of several lobes united by filaments often extremely minute. These lobes are at times so numerous that the nucleus presents in its entirety the appearance of a mulberry. A very frequent form is the trefoil; at times rays unite all the lobes. The aniline basic colors stain all of the nuclei with great intensity, which resemble, in this respect, those of

the lymphocytes. They contain a great deal of chromatic substance and very little nuclear juice. The protoplasm stains very feebly, often not at all, with the basic colors, differing thus from that of the two preceding groups. These polynuclear leucocytes represent 70 to 75 per cent. of the leucocytes. There still remains five per cent. of white corpuscles, represented by those which resemble at times the mononuclear and at times the polynuclear leucocytes, but differ from them in the special staining of the granules which fill the protoplasm. The most of these are represented by the eosinophile leucocytes, the remainder by the cells of Ehrlich.

Ehrlich's cells have their protoplasm filled with granulations which are only colored by the basic coloring matters. These granulations, round, of variable dimensions, have often been confounded with cocci. They may be distinguished by the colorless space in the centre of the mass, which represents the nucleus of the cells incapable of taking any stain. These leucocytes are extremely rare. They are especially found in pathological connective tissues. Some, for instance, in the spleen; they are very numerous in the lymph.

The eosinophile leucocytes have an oval or lobulated nucleus—thus analogous to those of the polynuclear—which is well stained by the aniline colors. With no basic color whatever are the granulations stained, even feebly. It is of no consequence what acid color, on the contrary, may be used, however diluted, but the granulations are very strongly stained and fill nearly the entire cell, leaving very little room for the protoplasm. The eosinophile leucocytes are always found in the blood of vertebrates. They sometimes have an elongated form, sometimes a crystalline appearance, particularly in certain reptiles and birds. They represent four of five per cent. of the white corpuscles of the blood and are especially prevalent in the marrow of bone.

In certain animal species, the rabbit and the wolf for example, but never in man, cells are found with granulations stained by eosine, which have been confounded with eosinophile leucocytes. Their granulations are smaller and in much smaller number, rarely filling the entire cell. These granules also take the basic colors, which is never done by the true eosinophile leucocytes. These cells have been denominated pseudo-eosinophile or amphophile. To distinguish them care should be taken not to leave the preparation a long time in the basic bath. In man, who has not these amphophile cells, a variety is found, without doubt corresponding, with granulations which are only colored by an acid and basic mixture; they are the neutrophiles.

In several species of mammiferæ—in the dog among others—no species of cells with granulations is found; it may be that they exist, but that the method of coloring them has not yet been discovered.

Which of these classes present phagocytic properties? Neither the lymphocytes, nor the eosinophiles, nor the cells of Ehrlich ever contain, in spite of their ameboid movements, foreign bodies, a truth which proves, it may be said in passing, that the pretended viscosity of the ameboid cells is not the cause of the encircling. Only the mononuclear, the polynuclear, the amphophiles and the neutrophiles enclose foreign bodies. According to the case, it is the one or the other category which plays the principle rôle.

In studying tubercle we have seen along side of the white corpuscles equally capable with them of enclosing foreign bodies, some immovable cells—the endothelial cells of vessels and nervous membranes—which present great analogies to them. Their protoplasm is stained by the basic colors as well as their nuclei, in which the nuclear juice is very abundant. When these cells are detached from the vessel walls and carried into the blood current, they are often difficult to distinguish from the leucocytes.

The analogies between these different groups of cells with large nuclei, single, are so great that they have been united under the general name of macrophages, reserving that of microphages for white polynuclear globules capable of surrounding foreign bodies. All of these phagocytic cells present the common characteristic of being derived from the mesoderm. In the muscular and nervous tissues there are other fixed phagocytic elements more specialized. In the muscular fascicles it is not the myoplasm, but only the interstitial substance or sarcoplasm, which fills the phagocytic function; as may be noticed in certain pathological cases, where the sarcoplasm, forming a large number of buds, surrounds, destroys, digests the myoplasm. The cells of nervous ganglia also manifest phagocytic properties and, it is probable that the cells of the neuroglia also have analogous properties.

What relations have these phagocytes with the micro-organisms? The phagocytes are endowed with a certain sensibility denominated chimiotaxia. They discriminate between foreign bodies and do not encircle them indifferently. Especially is this manifested towards various bodies in solution, and above all towards substances of bacteric origin. If, after the introduction of microbes into the organism, there is produced at first a considerable leucocytosis, and if the leucocytes direct themselves in large numbers towards the point of introduction, it is said that there is a positive chimiotaxia. If, on the contrary, the number of the white corpuscles diminishes, and if, at the point of introduction there is formed a simple serous exudate without leucocytes, it is said that there is a negative chimiotaxia. The more receptive an

organism is the more is the negative chimiotaxia manifested; the more refractory an organism is, the more is the positive chimiotaxia noted. If by vaccination a very sensitive animal is transformed into a refractory, the chimiotaxia, at first negative, becomes positive.

The encircling of microbes by the leucocytes is an active protoplasmic act and not simply mechanical, due to a pretended viscosity of the protoplasm. It is a physiological act on the part of the leucocytes and not on the part of the microbes, Metchnikoff has seen a very mobile spirilla in relapsing fever unable to introduce itself into the globules. The process then may be compared to an intracellular digestion, and in the process a difference in the method of fixation of the colors may be seen. The microbe, at first quite colorless, colors all at once with a great intensity, a proof of its death; then, little by little, the color disappears until it finally disappears entirely. Therefore the phagocytes surround and digest the microbes. If some leucocytes enclosing microbes are transported to a drop of nutritive substance, in a little while the leucocytes die, while the microbes, finding a favorable moment for their development, multiply in the interior of the phagocytic cell. Very soon this is filled, the peripheral protoplasmic bed is traversed and the microbes diffuse throughout the liquid. This is proof incontestible that the microbes have been encircled while living. The tubercle bacillus is distinguished by its great resisting power to this action. It is surrounded; sometimes it may be digested, but more often it resists, ends even by destroying the cell, and then is able to invade the organism.

The spores of the bacteria often resist the destructive action. Sometimes they may be digested, as, for example, those of the bacillus of tetanus. But more often they are not affected, the bacilli themselves being destroyed. This shows that in certain cases the phagocytes are protectors and not in others. This clearly demonstrates that it is the cellular elements, the phagocytes, which retard invasion and not the liquids of the organism. The principle method of defence of the organism then is the phagocytic action. Perhaps there may be other methods; it is very probable. At any rate it seems to be very clearly demonstrated that this protective power should not be ascribed to the humors of the body, which in general, and even in protected individuals, are an excellent medium of culture.—*Med. and Surg. Rep.*

The preliminary announcement of the sixth annual meeting of the National Association of Railway Surgeons of the United States, Canada and Mexico, to be held at Omaha, Neb., at the end of May, 1893, has been received. Interesting papers by various prominent surgeons.

ARE WE ON THE WRONG TRACK?

In the constant search for more exact and scientific methods which characterizes contemporaneous thought in medicine, is there not some danger that, with increasing knowledge of disease, we may be losing sight of the patient and his personal sufferings? In Germany, for example, the home of advanced scientific medicine, the patient is too often regarded, especially by the recent graduate, as the incidental appendage to a more or less interesting morbid process. We are not yet Germanized to this extent. For in our country it has ever been the boast of the medical profession that a practical spirit ruled its methods. This has earned us many a trans-atlantic sneer at our lack of scientific spirit. Nevertheless, it is pretty well understood nowadays that American physicians are excelled by those of no other country in the practical management of disease, even if it is conceded that some Europeans have attained a higher degree of perfection as regards certain refinements of diagnosis.

We have always maintained that clinical experience and "bedside" indications, as supplied by suffering humanity, cannot be entirely supplanted by laboratory research. But in Germany the laboratory rules the day.

It is interesting to observe that occasionally, even in the land of the Teuton, a voice will be raised against this ultra-physical tendency of medicine. That they are on the wrong track in regard to the treatment of sick persons over there, is, for example, boldly asserted by Professor O. Rosenbach, of Breslau. He says that the practitioner has had to take a "back seat," while the test-tube, the microscopical slide, and other instruments of precision, often wielded by mere theorists, are usurping his powers and functions.

The tuberculin fiasco is too fresh in the memory of all of us to need more than a mention here. Rosenbach says that it is absurd to treat phthisical patients as if their bacillary expectorations were all there was to the disease. He probably goes too far when he intimates that the presence or absence of bacilli in the sputum is of no practical significance. But it is quite true that treatment has not had much help from the bacillus tuberculosis. Any school-boy can stain and gloat over a few bacilli. Nevertheless it still taxes to the utmost the skill of an experienced doctor to secure a prolongation of life and comfort for the phthisical patient.

Again, with regard to cholera, it is senseless to base a diagnosis solely on the presence of the comma bacillus, and to be thus compelled to await the results of bacteriological tests before knowing what to do. Yet, during the recent German invasion, it has frequently happened that patients

were dead for a day or two before the practitioner was permitted, by grace of the authorized State bacteriologists, to "know" that the disease was true cholera. Moreover, the extraordinary fatality of cholera nostras is very suggestive of the possible fallibility of laboratory diagnosis, which disregards all clinical evidence.

Dr. Rosenbach deplores this tendency to exalt the chemist or bacteriologist above his deserts. He should be merely an assistant of the true physician. Rosenbach is strongly opposed to what he terms the diagnosis *in absentia*—that is to say an "exact diagnosis" based exclusively on the results of the chemical or microscopical examination, for example, of the urine, the patient being quite unknown to the diagnostician.

Prognosis and treatment based on such one-sided evidence are very apt to be faulty. Yet this method is much in vogue in Germany. The same objection applies to the practice of establishing the prognosis and treatment of tumors on what the microscope reveals in connection with a minute particle of the growth.

Modern medical science is fast approaching the final goal when the patient will be altogether a *quantité négligeable*, says Rosenbach. It is certainly dangerous to consider the human being merely in the light of an inanimate culture-medium for bacterial growth, or as supplying interesting secretions and other specimens.

But whatever they may do in Germany, there is not much danger that laboratories will supplant physicians in this country in the near future. Nor do we apprehend that Rosenbach's fears will soon be realized to the extent of making the German doctor altogether superfluous, even if diagnostic institutes, supervised by State officials, will be called upon to decide most medical questions.

It is true, in Germany, "bureaucracy" has become almost unbearable in arrogance. And we sympathize with the profession, whose standard is evidently being made lower by certain abuses of power on the part of sanitary and other officials. But we cannot take so hopeless a view of the situation as the learned professor of Breslau. The common sense of the people themselves will prevail and restore the now shaken confidence in the utility of the general practitioner of medicine. Perhaps we have all been, more or less, on the wrong track. But it is not too late to turn back. Let us award to faithful clinical observation of the patient that share in diagnosis and rational treatment which, so long as medicine remains an art, can never safely be taken from it. When civilized man is sick he craves human sympathy and succor. It is the privilege of our calling to extend this, even after a scientific laboratory diagnosis, with brutal frankness, has proclaimed the hopeless nature of a given case. Medical laboratories are still needed all over this country, and so are medical men. There is room for both. Neither can prosper at the expense of the other.—*Ed. in Med. Rec.*

A NOVEL EXPLANATION OF CHOREIC MOVEMENTS: A NEW TREATMENT FOR CHOREA.

Prof. Horatio C. Wood, of Philadelphia, who has been devoting much attention to a study of the mode of production of choreic movements for several years past, has arrived at a primary conclusion, which appears thoroughly logical, and which taken as a whole, affords a fine illustration of inductive reasoning. He announced recently, at his clinic at the Hospital of the University of Pennsylvania, that he had made what might prove to be a discovery of considerable practical importance with regard to the pathology of chorea.

The various steps, or stages of development, leading to this hypothesis are of great scientific interest. Some years ago, he had made a number of experiments upon dogs, and succeeded in demonstrating that these choreic movements had their origin in the spinal cord. After dividing the cord, in a dog suffering with chorea, the movements continued in the posterior extremities as before, save that, after the division of the cord, the muscular movements in the fore and hind limbs were no longer synchronous in their rhythm. In the human subject, Dr. Wood distinguishes two forms of chorea: first, those cases in which the muscular movements are violent and, to a certain extent, correlated so as to seem almost purposive—these are due to cortical lesions in the motor regions of the celebrum; and, secondly, those in which the muscular contractions are finer and more rhythmical, and are aggravated by attempts at voluntary movements—these are spinal in character. The latter variety, commonly recognized by the term St. Vitus' dance, is rare in adults but common in children, and is analogous to that which is encountered in the lower animals.

With regard to the common form of chorea in children, Wood claims that the choreic movements are caused by a paralysis, or depression of the inhibitory functions of the cells of the spinal cord. He directs attention to the physiological fact that, in the spinal centres, as in the brain, there are motor cells and also others which inhibit or arrest the discharge of motor impulses. In illustration, he cites the analogy of the heart, in which, after a period of functional excitement with discharge of force and destruction of tissue, there is a period of functional quiet with repair of tissue; the acclerator nerve stimulates to

functional activity, the inhibitory nerve to functional rest and repair. In chorea there is undoubtedly functional weakness of the motor cells; but there is also weakness, possibly greater weakness, of the inhibitory cells. When a choreic child makes a purposive, prehensile movement, the muscular contractions are exaggerated so that the hand, for instance, will move through a much wider range of motion than it would in health, compelling the child to make several attempts before succeeding in its purpose. The wider range of motion in this case is evidently due to a failure to arrest the flow of the motor impulse at the proper point; in other words, to defect of inhibition.

Having formulated this hypothesis the next step was to establish its truth, experimentally. He first recalled his therapeutic teachings as regards the action of quinine and atropine upon the reflex phenomena. He accepted as established, Chaperon's discovery that quinine has the property of lessening reflex activity, by stimulating Setschenow's centre in the medulla, in small doses; but, in large doses, causes permanent paralysis of reflex activity by acting upon the spinal motor cells in the same manner that the small doses affect the higher centre. On the contrary, atropine, as asserted by Ringer and Murrell, is a paralyser of inhibition. A choreic dog was made the subject of experiment, and, omitting details, it was graphically shown that the muscular rhythmical movements were rapidly increased after injection, hypodermically, of atropine, until they were enlarged fourfold. Following this, a hypodermic injection of quinine was given, and the movements were immediately reduced and in about twenty seconds they ceased entirely. This effect of quinine upon the choreic movements in dogs, Wood has frequently demonstrated, so that there can be no mistake about it.

The interesting observation was made, clinically, that whereas in chorea, the patellar reflex phenomenon, or knee-jerk, was lessened uniformly, this reflex became greatly exaggerated, by reinforcement, if some other voluntary movement were performed at the same time, such as raising the arms or clenching the fist. This he also explained on the theory of weakening of inhibition and the failure of inhibitory resistance to the overflow of impulse from certain spinal motor cells to neighboring centres.

In the study of the pathology of chorea, it is a strange fact that we have hitherto overlooked the phenomenon of inhibition. The phenomena of chorea, like those of hysteria, are not phenomena of increased excitement of motor centres, but of paralysis of inhibition. The conjunction of increased muscular and nervous discharge with evident weakness of the spinal centres, is explicable very plausibly upon Wood's theory that the motor cells are weak but the inhibitory cells are weaker still. It only remains to add that in several patients very prompt and marked improvement followed the application of this theory by the use of full doses of quinine.

Dr. Wood is to be congratulated upon this clinical confirmation of this very interesting contribution to the pathology of chorea, which has every appearance of being a discovery of permanent value and of practical importance.—*Ed. in Boston Med. and Surg. Jour.*

EXPERIMENTING WITH CHOLERA.

Pettenkofer, who, as is well known, has never fully accepted the doctrine of Koch with regard to the comma bacillus, has recently been experimenting with pure cultures of this lively microbe. His old-time views on the nature of the disease have not been materially affected by his most recent observations. Neither experiments on himself nor studies on the course of events, more particularly at Hamburg, have shaken his faith in the correctness of his often-repeated opinions. In a recent address, delivered at Munich, he has once more taken occasion to reassert his own pet dogmas with reference to the Asiatic scourge. A *resumé* of this entertaining lecture is published in the *British Medical Journal*. From it we learn that the veteran epidemiologist stated that "the only question now appeared to be how the comma bacillus was to be destroyed, or at any rate prevented from multiplying. He recalled that many years ago he said that the etiology of cholera was an equation with three unknown quantities, namely, x, a specific germ disseminated by human intercourse; y, a factor dependent on place and time, which he called 'local disposition;' and z, the individual predisposition.

"The simplicity of Koch's theory commended it to those who only looked at the individual patient, and not at the course of a long series of epidemics. Places as well as persons often enjoyed immunity, and places which suffered at one time remained free at another, even when two of the factors, x and z, were present. The determination of y was not so easy as that of the others, and the speaker could only say that the nature and degree of moisture of the soil had an important influence. The constant occurrence of the comma bacillus in the excreta of cholera patients indicated that the microbe had something to do with the process, but it was still open to question whether it alone was the cause of the disease."

In the course of his remarks Pettenkofer alluded to "some experiments made on himself with bacilli obtained from Hamburg. Several of his pupils offered themselves as subjects in his place, but acting on the principle *Fiat experimentum in*

corpore vili, he thought he himself—seventy-four years old, glycosuric without a tooth in his head, and with other infirmities of age—was the fittest person to run whatever risk there might be in the experiment. From pure agar cultures of the comma bacillus made by Professor Gaffky, a bouillon culture was prepared in the ordinary way by Drs. Pfeiffer and Eisenlohr. Gruber having shown that fresh cultures are more active than those which have been kept for some days, Professor von Pettenkofer chose one which had not been quite twenty-four hours in the incubator. A plate culture of this showed that one cubic centimetre even of a thousandth dilution contained numberless comma bacilli, far more than could possibly be conveyed by a man's hand to his mouth. As Koch has shown that the gastric juice was capable of killing even a large number of comma bacilli, Professor von Pettenkofer was careful to take his dose of microbes two hours and a-quarter after a light breakfast, when, according to a calculation made by von Voit, there could not have been so much as one hundred cubic centrimetres of gastric juice, with 0.3 per cent. of hydrochloric acid, in his stomach. In order to neutralize even this small amount of acid, however, he took one gramme of bicarbonate of soda dissolved in one hundred cubic centrimetres of Munich conduit water. He then measured out one cubic centimetre of the fresh culture, swallowed it at a draught, and washed out the glass with fifty cubic centimetres of water, which hs also swallowed, so as to insure the ingestion of as many bacilli as possible. This was on October 7th. On October 9th severe colicky pains and moderate diarrhœa came on, and did not entirely cease till October 15th. During that time the urine was normal in amount and contained no albumin. He took no medicine whatever during the attack, but took his customary food with good appetite, and pursued his usual avocations without any interruption, feeling perfectly well except for the symptoms mentioned. While the diarrhœa lasted the stools were examined bacteriologically by Drs. Pfeiffer and Eisenlohr, who found them swarming with comma bacilli. Professor von Pettenkofer asks rhetorically how many *milliards* of these microbes there must have been in his intestines during these eight days, and yet he had no symptoms of Asiatic cholera. He thinks, however, that his experiment might have had a fatal result if it had been carried out in Hamburg, where not only x but y was present in full force. An exactly similar experiment was made on himself by Professor Emmerich on October 17th, with much the same result, except that the colic and diarrhœa were much more severe; otherwise he felt perfectly well."

So much for Pettenkofer's lecture, from which it appears that these German savants had the courage of their convictions. In answer to the possible objection that they had a mild attack of true cholera, they adduce the testimony of Ziemssen and others, who assert that they did not. Yet assertion is not proof. It certainly does not appear to us that the Koch doctrine has received its quietus from these experiments. It is generally agreed that the comma bacillus is not necessarily fatal when swallowed, but that does not militate against its casual relationship to the disease. There are cholera-proof individuals just as there are variola proof ones.

On the other hand, it must be admitted that the bacterial origin of cholera does not fully explain all the features of its epidemic appearance. But the "soil and rainfall" views of Pettenkofer are not capable of scientific demonstration. They are mere theory and dogma. At all events, it is satisfactory to note that even Pettenkofer believes in local sanitation. If we can make ourselves and our homes "cholera-proof," we need not fear the Asiatic pestilence, even if we should inadvertently swallow an occasional comma-shaped vibrio. The senseless panic of last fall must not be supplied with this mental pabulum for a revival, even if we do get some cholera here next spring.—*Ed Med. Rec.*

OPIUM IN SHOCK AND PNEUMONIA.

Under date of November 12th, 1892, in the *Medical Record*, Dr. Dawbarn gives us some history of cases where "arterial saline infusion" is used. These seem to indicate the usefulness of the method after the case had arrived at so serious a pass as to require extreme measures; but while such things—new—are always coming up, we should not forget our old and tried friends, especially if with them we are enabled to prevent the sad condition that calls for the more severe remedy.

Opium has long been used in shock, but I fear its action has too often been carelessly regarded—as likewise the fact that patients do not die from shock directly, but rather from the collapse that follows. Bearing this in mind, the remedies we look for as likely to aid us are evidently stimulants, especially those that act on the nervous system most directly, powerfully, and permanently, without any other effect.

Ammonia and amyl-nitrite are too transient in their action. Alcoholics are not true stimulants, but opium has long, and I believe justly, held high rank among remedies for shock; but, as I have said, not so much because it benefits the patient while suffering from shock, as because it often prevents the collapse. How, then, does opium, or morphine, which is the best form to be used, act in collapse? Opium is a narcotic, and as such has a double action. The first action is to stimulate

the nerve-centres and then to depress, much the same as alcoholics; hence, to obtain continued stimulation, small and frequent doses must be taken, so that the stimulant effect of a dose may be felt before the depressing effect of the former dose comes on, and thus we have a continuous stimulant.

Not only is opium of great use in the collapse that follows surgical shock, but I have found it of the greatest possible service at the critical stage of pneumonia, which is only another form of collapse. It has been my custom to use brandy and carbonate of ammonia as everyone does, but not to rely on them at the crisis.

My plan has been to begin with one-eighth grain morphine every two hours as soon as the pulse showed that it did not respond to the brandy given frequently. Any sign of flagging has been met with an increase of dose and a shortening of time between doses, until in a number of cases I have given one-quarter of a grain every hour for two days with no suspicion of narcotism. Of my last thirty-eight cases thus treated at the critical time, all recovered except three, aged, respectively, eighty, eighty-one, and eighty-five years.

Care must, of course, be taken that the doses are not omitted, or else the drug would, by its secondary effect, carry the patient down. So, too, when the crisis is past we must slow down gradually, first lessening the amount of a given dose and then lengthening the time between doses. Of course only uncomplicated cases are included in this number. Many of the cases were seen by our most prominent physicians and the diagnosis confirmed. One case, where there was first two carbuncles, then erysipelas, followed by pneumonia, the patient, seventy-four years old, also recovered.

It is, however, proper to state that not all the credit should be awarded to opium thus administered, for in none of my cases are poultices used. I believe that the pneumonic process is extended by the exposure incident to the changing of the poultices, and therefore use an oil-muslin jacket lined with cotton, taking care to see that it is nicely quilted to prevent any rolling up of the cotton. In this way all portions are protected alike. The poultices only give us moist heat, and this is secured without exposure to cold by carefully rubbing white vaseline on the chest, leaving not only the jacket but the bed-clothing as much as possible undisturbed,

The death-rate I have shown, low as it is, is much the same as was obtained in the New York Hospital years ago, before some of our new methods were in use. My authority for this is a former physician to that hospital. When we remember that statistics recently published in Berlin gives as high as forty and fifty per cent. as the death-rate with some forms of treatment, we are again reminded that a proper use of tried methods should not be abandoned until others are proven better. Rather let the new supplement the old.—W. Washburn, M.D., New York, in *Med. Rec.*

THE EARLY EXTIRPATION OF TUMORS.

In a paper read before the New York State Medical Association, at its recent meeting, Prof. J. W. S. Gouley presented the following conclusions on this subject:

1. Malignant tumors exceed benign tumors in frequency.

2. The malignant tumors comprise epitheliomata, sarcomata and internal adenomata.

3. Among the benign tumors myxomata and external adenomata often recur after excision, but do not infect the system.

4. There is no solid benign tumor that may not become malignant.

5. No means are known by which can be ascertained the precise time of the beginning of metamorphic action in tumors.

6. Most malignant tumors have a stage of benignity.

7. Excision of potentially malignant tumors in the early epoch of their stage of benignity is likely to effect a permanent cure, or at least to prolong greatly the period of immunity from recurrence of the disease.

8. In the excision of malignant tumors, the greatest care should be taken to remove as much of the ambient tissues, including fasciæ and lymph glands, as is compatible with good judgment.

9. General treatment of tumors has no value except as an adjuvant of a surgical operation, and is often indirectly injurious, leading the patient to expect a cure by persevering in the use of drugs, and thus allowing the disease to make rapid progress toward a fatal end.

10. Local treatment of tumors, by means of escharotic plasters, pastes or powders, is the most fruitful in evil of all the devices for the torture of the afflicted. The plaster, paste or powder, causes the greater part of the tumor to slough, but there is enough left behind for the most rapid extension of the disease. The effect of the escharotic is, therefore, only to till a soil where new growths sprout like so many seeds cast upon rich loam.

11. Compression is delusive in the case of tumors containing cysts, and is directly hurtful by exciting the rapid growth of most tumors.

12. Expectancy, even in the case of benign tumors, is as unwise as meddlesome medication.

13. There should be no waste of time in endeavoring to make a precise diagnosis of a particular morbid growth, for after its excision

the microscope reveals the nature of its constituent elements and assists in the establishment of the prognosis, which is the question of greatest importance to the sufferer.

14. What is known of the great fatality of tumors of long standing, should induce surgeons to advise the complete removal of all accessible morbid growths as soon as detected, no matter how seemingly trivial or harmless, such as small glandular, fatty, fibrous, and vascular tumors, wens, warts, moles, etc.

15. As soon after excision and as often as a tumor recurs it should be removed, so long as there is any possibility of insuring cicatrization of the wound, even by skin-grafting.

16. Medical treatment after the excision of malignant tumors is of much value, even if it consists only in the administration of reconstituent medicines.—*N. Y. Med. Jour.*

CLINICAL NOTES.

On early Tapping in Serous Effusions of the Pleura.

This patient was admitted here on July 20th, 1892, with a pleural effusion. He has since admission been tapped three times in all, at intervals of three or four weeks. On the first two occasions a clear serous fluid was withdrawn; on the third occasion the fluid was of a puriform character, necessitating the ordinary surgical procedures for an empyema.

I do not personally believe, as a general rule, in tapping too early in cases of serous effusion into the pleural cavity, because in the first place the fluid re-accumulates with rapidity; and in the second place there is, to my mind, no clinical evidence that these serous effusions are more liable to become empyemata if left alone, or to seriously injure the lung. The history of this case certainly illustrates that point. He was tapped early; the fluid re-accumulating he was tapped again, the fluid still remaining serous, and yet on the third tapping pus was withdrawn; it had become an empyema.

A great deal too much stress is laid upon the question of early tapping. As a matter of fact fluid in considerable quantities may remain in the chest for several weeks, and yet when it is removed the lung will recover perfectly.

My rule in cases of serous effusion is to tap only when (1) effusion is very considerable in amount, (2) when the viscera are displaced by it, and (3) when symptoms of urgency arise. I always wait and watch in the absence of these conditions, and even with these conditions present I postpone tapping so long as possible should there be much fever, as then the fluid re-accumulates with extra rapidity, and sometimes is apt to coagulate and cause a difficulty in performing the operation.

The Question of Absolute Rest in bed with Starvation Diet *v.* Moderate Exercise and Moderate Diet in the Treatment of Aortic Aneurisms.

When you have made your diagnosis that the patient is suffering from aortic aneurism, without such urgent symptoms as absolutely indicate complete rest in bed, the question arises as to whether the patient shall be sent to bed for a long period, in the hope of bringing about a cure, or shall be allowed moderate exercise. I am now entirely against putting a patient to bed for a long period, and limiting his diet to what may be called "starvation diet." The confinement I regard as not only irksome to the patient, but positively detrimental to the tissue nutrition; and the "starvation diet" I condemn for the same reasons, except as regards limiting the quantity of fluid to be drunk.

You will remember the case of a subordinate official of this Hospital, who, for two and a half years after he was diagnosed to be suffering from aortic aneurism, continued to perform the light duties of his position up to his death. I believe that complete rest in bed on the strict diet would not only have failed to prolong his life, but such treatment might have even shortened his life.

I should give such a case a liberal diet as regards nitrogenous material and fats, limiting strictly the liquids; and I should advise moderate exercise and moderate occupation, taking care to strictly define what I mean by "moderate."

Aneurism of the aorta is but seldom cured. We have so little knowledge in this particular class of case as to the conditions which make for cure, such as the size of the orifice of the sac, the roughness of the sac walls, etc.; that I believe it should be regarded as incurable, and would treat it as one would do a case of aortic regurgation.

Salicylic Intoxication in Young Children.

When administering salicylate of soda to young children, it is necessary to watch its effects with care, as it occasionally produces in them a very alarming condition of pallor, delirium, and dryness of the tongue.

Some year ago a child of about five was under my care in this hospital. Salicylate of soda being given, she passed into a condition of this kind, the symptoms being so urgent that I feared she would die. The drug was stopped, and all the symptoms subsided. Not being at all sure, however, then that these symptoms were due to the drug, it was repeated, the child being carefully watched, and the symptoms all recurred, though in somewhat milder form.

As to dosage, five grains given three or four times a day is a full dose for a child of five or six years of age. When given the patient should be

watched with care, so that on the first appearance of symptoms of drug intoxication, the dose may be diminished, or the drug discontinued. Understand me: I do not say that five grains administered in this way to a child of this age is *necessarily* too large.—*Clinical Jour.*

MEDICAL NOTES.

Epithelioma, says Prof. Keen, is one of the very rarest of occurrences in women.

Prof. Parvin favors *Creolin* to any other antiseptic for use in the lying-in-chamber.

Prof. Keen recommends the administering of large doses of calabar bean in cases of *Tetanus*.

Prof. Hare says glycerine can be used in cases of *Diabetes* as a sweetening agent without any ill effects.

After arsenic, Prof. Hare recommends cimicifuga as the next best drug in the treatment of cases of *Chorea*.

Prof. Hare says that an anæsthetic should always be given in cases of *Painful Labor*. He favors chloroform in preference to ether in these cases.

Prof. Keen cited a case of *Syphilis* in which he administered to the patient sixty grains of the iodide of potassium four times a day without any bad results.

Prof. Hare says that codeine should always be tried in the treatment of cases of *Diabetes Mellitus*, as it may exercise a favorable effect.

Prof. Hare says that in expected paroxysms of *Malaria* the quinine should be so administered as to get its full effects an hour or two before the expected attack.

Prof. Wilson says that if the heart sounds are heard more distinctly on the left side than on the right, in the interclavicular regions, it will go toward making a diagnosis of *Consolidation of the Left Lung*.

Prof. Hare suggests, in cases of *Failure of Respiration* due to the patient being anæsthetized, that the head be pushed forward and upward, and not placed lower than the body, as is sometimes done.

For *Vertigo* with pain, Prof. Hare recommends the following prescription:

℞.—Extract. ergot. fluid., . . gtt. x-xx.
Potassii bromidi, . . gr. x-xx.
Cannabis indicæ, . . . gtt. v.—M.
Sig.—To be taken in one dose.

An important diagnostic point between *Pyæmia* and *Septicæmia*, says Prof. Keen, is that in cases of pyæmia we will have regular chills occurring; but in cases of septicæmia we do not have any chills at all.

Prof. Forbes recently stated to his class a fact, found in few, if in any, text-books. If a line be drawn from the middle of each of the condyles of the inferior maxillary bone to the symphysis menti, and from one condyle to the other, we will have formed an *Equilateral Triangle*. This will be found so at all ages, even in the fœtus, and only in the human being, and not in the lower animals. —*Coll. and Clin. Rec.*

Ptomaine Poisoning.—Dr. Thomas Stevenson (Official Analyst, Home Office) communicates the sequel to the case of a military officer, aged twenty-one years, who died in twenty-four hours with symptoms of acute poisoning after partaking at breakfast of six hot sardines on toast with coffie. At the post-mortem, made next day in cool damp weather, lividity and rigidity were both well marked. The features were so bloated as to be unrecognizable. The whole body was emphysematous but the hands and feet, which appeared blanched by contrast. The mucous membrane of the stomach and the rugæ of the intestine were emphysematous. The liver was hyperæmic and friable posteriorly. Four days later the opened tin of sardines, stomach contents, and some vomit were received for analysis.

"The sardines had no unusual appearance, and looked quite fresh; the tin itself was bright and uncorroded. Their odor was peculiar, but not offensive. Some of the fish were intensely toxic; of six white mice, which were fed on them, four died; also a rat; whilst two of the mice and a young cat, fed on two of the fish, were unaffected. Two mice appeared to have immunity, for when fed on portions of fish which had been fatal to other mice, they did not suffer. From four of the fish, weighing two and a quarter ounces, I extracted, by a modification of Stas' process, an alkaloidal substance, which weighed only one milligramme ($\frac{1}{65}$ grain). About two-thirds of this, when injected beneath the skin of the back of a young white cat, caused its death within four and a quarter hours. No characteristic pathogenic forms of bacteria were discovered in the sardines. A piece of one of the sardines which when eaten had caused the death of two mice, was macerated, whilst swarming with ordinary bacteria, in sterilized (by heat) water and placed beneath incisions in the backs of two guinea-pigs, but the animals were unaffected. These experiments point to poisoning by a toxic ptomaine, and not to the direct action of pathogenic bacteria on the animal organism."

An alkaloidal extract abtained from the stomach contents and another from the vomit proved rapidly fatal to animals. The symptoms exhibited by all the animals were similar—great feebleness, loss of muscular power, and retching.

"These experiments again appear to show that the stomach and ejecta of the diseased man contained a virulently poisonous ptomaine, similar in character to that contained in the sardines. A fragment of the putrid liver, swarming with bacterial life but in which no characteristic pathogenic forms could be detected, was macerated in water previously sterilized by heat, and some of the macerated fluid was inoculated beneath the skin of the flanks of three guinea pigs. All died within twenty-four hours. Two of the animals exhibited no particular post-mortem appearances. The third had much œdema about the site of inoculation, there was fluid in the peritoneal cavity, the spleen was enlarged and much congested, and the intestines were emphysematous. The œdematous fluid from the sight of inoculation, the peritoneal fluid and the spleen juice all abounded in bacilli similar in appearance to those of malignant œdema. Some were single rods, but many were prolonged into long jointed threads. No spores were seen. That a ptomaine and not a direct action of bacteria was the cause of death of W. H. seems to me clear from the above experiments. Nevertheless, the facts that there was œdema of the thigh of the deceased man, and that his liver was capable of producing malignant œdema in a guinea-pig, are curious. I incline to the opinion that the ptomaine was generated before the tinning of the sardines." —*British Med. Journal.*

LISTER AND CARBOLIC ACID.—In an address recently delivered in London, Sir Joseph Lister sounds the praises of carbolic acid as compared to other and more recently devised agents for disinfection. Most of the micro-organisms which the surgeon has to fear are easily destroyed by a one-to-twenty, or weaker, carbolic solution. His method of disinfecting sponges will startle many surgeons of the present day. He says:

"For my own part, I purify my sponges for private operations in a somewhat rough-and-ready way. I put the sponges after an operation into a tank of water and let them putrify there. The fibrin, which clings among the pores of the sponges, becomes liquefied by putrefaction. They can then be washed thoroughly clear of their fibrin, and the washing is continued until they no longer give a red color to water. They are then put into one-to-twenty carbolic solution and kept there. In my Edinburgh practice I used to proceed in a bolder way. Taking the sponges out of the putrid tank, I washed them in water, and sometimes if I was in a hurry, even before the water which came from them was completely freed from red color, I dipped them into the one-to-twenty carbolic solution, and took them at once to my operations. I have before now applied a sponge so treated immediately to a wound for the purpose of exercising elastic pressure and absorbing blood and serum from it, and then put on my external antiseptic dressing over it without any bad result. These facts taken together will, I think, be enough to convince you that it is not necessary, as is sometimes done, to discard these most valuable articles and substitute for them sterilized cotton-wool or tissue of one kind or another, incomparably inferior to sponges for the purpose of absorbing blood."

He uses the same solution for instruments, hands and the skin of the patient. After scrubbing the instruments with soap and water and a nail-brush, they are put into the one-to-twenty carbolic solution for a few minutes. A few minutes' action of the one-to-twenty carbolic solution on the skin he considers sufficient. It is much to be preferred to corrosive sublimate, as it is not only a germicide but penetrates deeply into the epidermis and mingles with fatty materials. Before the wound is closed it is washed out with a one-to-forty carbolic lotion.—*Boston Med. and Surg. Jour.*

ATHLETIC EXERCISES AS A CAUSE OF DISEASES OF THE HEART AND ARTERIES.—At a recent meeting of the Medical Society of London, Collier called attention to the growing tendency to indulge in certain athletic sports to an injurious extent. He referred to the connection between oft-repeated muscular effort and diseases of the heart, pointed out by Dr. Peacock as observed in Cornish miners. In these men the symptoms began to develop at about the age of 40, with slight dyspnœa and palpitation, gradually increasing in severity. The pathogical changes observed were dilatation and hypertrophy of the ventricles, with, in a certain proportion of the cases, aortic incompetence. He urged that the evidence was conclusive as to the effect of frequently repeated muscular exertion in the production of heart disease. Dr. Morgan's researches on the after-history of the oarsmen in the Oxford and Cambridge boat races between the years 1829 and 1869, comprised 251 out of 255 still living and he came to conclusion that the majority were rather benefited than otherwise by their exertions. He remarked, however, that these researches bore upon picked and carefully trained men. Boating, moreover, appeared to entail less risk than either running or cycling, and he insisted upon the fact that it was in the frequent repetition of severe muscular effort that the danger lay. The practice of cycling against time he considered to be a particularly pernicious practice, in support of which he quoted a number of instances of consequent circulatory

lesions. He had observed symptoms pointing to dilitation of the right ventricle after rowing, running, and football, but such symptoms occurred exclusively among badly developed, narrow-chested, weakly men. The physiologically dilated and hypertrophied hearts of trained athletes underwent certain changes in the direction of atrophy of the muscular substances, which later on might render them unable to cope with sudden extra strains.

Dr. Sansom observes that many athletes experienced no symptoms of circulatory disturbance, though there was marked evidence of hypertrophy of the left ventrical; and he raised the question whether this condition was to be regarded as physiological or pathological. Some athletes, however, showed unequivocal signs of diliation of the right heart, while others gave evidence of disturbance of the cardiac innervation. He referred to a number of cases of tachycardia directly attributable to overstrain, a condition which was specially liable to result from the pernicious practice of racing against time. In other cases structural disease of the heart and endocarditis resulted.—*Brit. Med. Jour.*

McPherson, (E. M.) on Things to be Remembered in Rural Practice.—In the treatment of diseases of the ear there are certain facts that should be known and remembered as a matter of safety to the patient and satisfaction to the physician. It should be remembered that all liquid applications made to the canal or middle ear should be previously *warmed*. That cold water should never be used when syringing the canal on account of its tendency to induce tympanic inflammation.

That the use of the syringe in the auditory canal is not unattended by danger to the drum-head.

That many cases of deafness result from an accumulation of the ear wax in the canal, and can be cured by its removal. That such tendency to accumulation of ear wax—when not resulting from the use of oils in the canal—is indicative of an abnormal condition of the ceruminous glands, perhaps from middle-ear disease.

That the practice of keeping the auditory canal plugged is a harmful one, and except during acute inflammations of the deeper parts, should be discontinued.

That the natural curvature of the auditory canal protects the deeper structures from hurtful external influences.

That boxing the ears, or other methods of concussion, occasionally causes rupture of the drum membrane.

That the disease known as "earache" is acute catarrhal inflammation of the middle ear and one that should receive the attention of the physician.

That a very large percentage of all tympanic diseases have their origin in diseased conditions of the mucous lining of the nose, pharynx or larynx, and that their cure depends largely upon the treatment of these latter parts.

That the constant application of warm water in the auditory canal is among the best known means for controlling the pain attending acute tympanic inflammations.

That poultices long continued for this purpose are objectionable on account of their tendency to induce suppuration of the middle ear with consequent rupture of the drum membrane.

That local applications in the auditory canal, as mullein oil, or laudanum and sweet oil, when the drum-head is not perforated do no good, and only for the heat and moisture which they carry (and which can be better carried by warm water), might well be dispensed with.

That oft repeated attacks of "earache" are apt to lead to impairment and perhaps destruction of hearing.—E. M. McPherson, M.D., in *Med. Gleaner.*

The Treatment of Fracture of the Clavicle and a New Dressing for the Same.—Bunger recommends for the treatment of fractured clavicle the following dressing:

An elastic T-shaped bandage is used, the cross-piece of which should be sixty centimetres long and four wide. The three tails which are fastened to the cross-piece, as the spokes to a wheel, should be each 120 centimetres long and ten broad. The cross-piece should be made fast to the second shoulder, in such a manner that the middle and one side tail should rest on the back, while the remaining side tail should rest on top of the shoulder. The middle tail is then carried over the back, through the axilla and around the upper third of the arm of the injured side; it is then carried back to the starting point, and fastened. By this means the arm is drawn directly backwards. The lower tail is likewise carried over the back and around the arm of the injured side, so that it grasps the elbow; it is then carried back to the starting point and fastened. This part of the dressing not only draws the arm backwards, but also somewhat upwards. The remaining tail is then carried over the sound shoulder, downward around the wrist, so as to form a sling for the arm of the injured side, then back over the seat of fracture and fastened to the two tails on the back. The author claims for this bandage:

1. The arm is not fastened to the side, as in a Velpeau or Desault dressing, and is, therefore, not so uncomfortable.

2. The elasticity of the bandage always holds it in the proper position, no matter what position the patient may assume.

3. It can be used in any fracture of this bone.

4. It need be applied next to the skin only for ten days, and then can be placed over the patient's coat.

5. It better reduces the deformity than any other bandage.—*University Med. Magazine.*

TENDON REFLEXES.—The following is a classification of tendon reflexes by Dr. William C. Krauss and which may be found useful:

Exaggeration of Tendon Reflexes.	Organic Disease.	Spinal Cord.	1 Myelitis	
			2 Amyotrophic lateral sclerosis.	
			3 Paraplegia spastica.	
			4 Multiple sclerosis.	
			5 Syringomyelia and hydromyelia	
			6 Hematomyelia and hematorrhacis	
			7 Spinal tumors.	
			8 Pachymeningitis hemorrhagica interna.	
			9 Pachymeningitis cervicalis hypertrophica.	
			10 Brown-Sequard's spinal paralysis.	
			11 Arthritic muscular atrophies.	
		Brain.	1 Hemiplegia.	Cerebral apoplexy. Cerebral embolism, thrombosis. Acute encephalitis.
			2 Hematoma.	
			3 Hydrocephalus.	
			4 Senile dementia.	
	Functional Disease.		1 Hysteria.	
			2 Epilepsy.	
			3 Neurasthenia.	
			4 Paramyoclonus.	
			5 Tetanus.	
			6 Psychoses.	
			7 Infectious processes.	
Abolition of Tendon Reflexes.			1 Neuritis.	Simple. Toxic. Endemic. Infective.
			2 Locomotor ataxia	
			3 Poliomyelitis anterior.	
			4 Spinal muscular atrophies.	
			5 Hereditary ataxia (Friedreich).	
			6 Chorea molle.	
			7 Chronic ergotism.	
			8 Diabetes mellitus.	
			9 Traumatism.	
Abolition and Exaggeration.			1 Meningitis.	Spinal. Cerebral.
			2 Dementia Paralytica.	
			3 Idiocy.	

—*Buffalo Med. and Surg. Jour.*

MENTHOL FOR EXCESSIVE VOMITING.—Dr. Weil (*Centralblatt fur die Gesammte Therapie*), after seeing the use of menthol for the excessive vomiting recommended by Gottschalk, Weiss, Koltenbach, tested its use himself.

His patient was a woman, twenty-three, I-para. She was six weeks advanced when the vomiting came on, but laid the blame upon some rich fish eaten some time before. After a very few days an acid vomiting began again, but first only in the mornings, then several times a day. In eight to ten days the illness had fully developed, vomiting became more and more frequent, following the slightest attempt to take nourishment, and often occurring without that. The patient became greatly emaciated, with a pulse of 110 and a temperature of 98°F. Finally blood was vomited. The treatment was rest in bed and strict diet. Genital treatment and a rectal alimentation were not permitted.

Various drugs were used with little or no avail. At last menthol was tried, and the vomiting ceased at once. It occurred again two or three times on following days and then not again. The patient recovered rapidly, and the pregnancy reached its normal termination.

All the authors mentioned gave menthol solutions in spoonfuls at certain intervals, just as a narcotic would be given, evidently with the intention of producing a lasting diminution in the reflex irritability of the stomach. Now the action of menthol is above all a local one, and confined to a short time—about ten to fifteen minutes; it appears to be a cooling action, rendering insensible to pain and anæsthetizing.

Sure that the action was only a local and immediate one, Weil wished to administer it at the beginning of nausea, just before vomiting might occur. It was necessary for this purpose to prepare it in such a way that it could act at once upon the mucous membrane of the stomach. He took a twenty per cent. solution of menthol in olive oil, dropped ten drops of it on finely-powdered sugar, spreading the same over it. This made a mass of such consistency that it could be swallowed with a sip of water as readily as a large pill. It only left the taste of sugar, and was immediately diffused in the stomach. The action was marked. As soon as nausea seized the patient she quickly took this dose, and was able from ten to fifteen times to prevent the vomiting. As the illness had already been in progress four weeks, Dr. Weil does not claim that the menthol alone caused its rapid termination. But the separate attacks of apparent uncontrollable vomiting were stopped by it every time. All other preparations of menthol are very hard to take.—*Archives of Gynecology.*

A FATAL CASE OF VOMITING OF PREGNANCY.—A patient was sent to me at the Hospital for Women, Soho-square, on Jan. 18th, 1893, by Mr. Melville of Caledonian Road. She was twenty-nine years of age and, although married seven years, had never before been pregnant. Menstruation, established at the age of fourteen, had recurred regularly every three weeks until Sept. 25th, 1892, since which date—*i.e.*, for nearly four months—there had been complete amenorrhœa. From the end of October until the week before Christmas she complained constantly of a feeling

of sickness, but only occasionally during this period was there actual vomiting. Since the week before Christmas she had vomited almost incessantly. If even the smallest quantity of fluid was taken it was ejected immediately. For one week she had complained of tenderness of the abdomen. Physical signs: The anterior abdominal wall was flat and so retracted that the anterior superior spines of the iliac bones stood out prominently. The abdomen was so extremely tender that the results of palpation and percussion could not be ascertained. Vaginal examination: The vagina was exceedingly tender, and there was noted a marked bulging of the anterior wall of this canal. The cervix was situated far back towards the sacrum and was closely applied to the left wall of the pelvis. It was surrounded by what appeared to be an œdematous collar of mucous membrane at the vaginal roof. The cervix was not soft. The os looked downwards. On the right side the vaginal roof was pushed down below the level of the external os by a large globular and cystic swelling. Bimanual examination: The abdomen was occupied by an ovoid swelling which reached to about two inches above the pubes and the greater diameter of which extended transversely. Palpation of this abdominal swelling could be equally perceived in both the swelling in the right fornix and the cervix. Both breasts were enlarged and tender, but no colostrum could be obtained. The pulse numbered 120 per minute and the temperature was normal. The temperature continued normal until the day before death. when it fell to 98° F., but the pulse gradually increased in frequency. Death occurred on Jan. 30th, but for three or four days previously the patient occasionally prolonged attacks of syncope.

Necropsy.—Here and there the skin of the face, chest and legs was of a deep lemon color. On opening the abdominal cavity the peritoneal sac was dry and there was no evidence of peritonitis The uterus occupied more especially the right half of the pelvis and the fundus reached to about three inches above the pubes. Two small fibroid nodules each of about the size of a pea were observed in the anterior wall of the uterus close to the fundus. There was no evidence of tension in the broad ligaments and both ovaries and both tubes were apparently healthy. The uterus was removed intact. The bag of membranes was then observed projecting beyond the external os. The posterior wall of the uterus had evidently yielded more to the pressure of the developing ovum than the anterior, for not only did it bulge more than the latter, but it was actually much longer and much thinner, The placenta was found detached, yet no hæmorrhage had resulted from the separation. It was a four months' fœtus. The liver was of a pale-yellow color; it was soft and fatty but not enlarged. The gall-bladder, which was distended, contained bile of a deep olive-green color. The spleen was rather small. All the other organs of the body were apparently healthy.

TREATMENT OF ULCERS BY STRAPPING.—Dr. C. E. Quimby, advocates this method of treatment which is carried out as follows:

1. Adhesive straps should not be over one inch in width, and usually a narrower strap is to be preferred.

2. Straps should be as short as is consistent with a firm hold on healthy skin, and should never fully encircle the limb.

3. All straps should be applied at *right angles* to the long axis of the ulcer, subject to slight modification by the direction of greatest cutaneous elasticity, and are to be adjusted in two sets.

First set:

4. These straps are applied in the usual manner by fixing one end on healthy skin and approximating the edges of the ulcer as the other end is applied and fixed.

5. The first strap of this set should *bisect the ulcerated surface.*

6. Each succeeding strap of this set should bisect uncovered ulcerated surfaces.

7. As any strap becomes loosened, one end should be freed and reapplied under appropriate tension.

8. Straps should be applied in this manner until the uncovered strips of ulcerated surface are narrower than the straps in use.

The second set is then applied.

Second set:

9. Each strap of this set is to be applied from its centre to both ends simultaneously under appropriate tension, so as to cover an exposed strip of ulcer, and overlap two adjacent straps of the first set. To accomplish this, the straps are held by both ends and adjusted while being firmly stretched.

The degree of tension under which these straps are applied, will depend upon the tension under which the first set have been adjusted. If applied under too high tension they will cause puckering of the straps of the first set.—*Medical Record.*

ALBUMINURIA.—The author confines his attention, in this paper, to the ætiology and varieties of albuminuria. He denies the existence of the so-called physiological albuminuria, claiming that the renal lesions or the concomitant disease is overlooked; in his own words, "that there does not exist an albuminuria without functional or organic lesions of the renal filter, no assertion being made as to the site of the trouble."

The pathogenesis, he considers in two great classes, Albuminuria, Symptom of General Disorder and Albuminuria, Symptom of Nephritis. In

the first division, the majority of cases arise from circulatory, nervous, thermic, toxic or infectious disturbances, which are described at some length. Special attention is called to febrile albuminuria, in which a number of factors enter; fever, infection, the state of the blood, etc.; albuminuria of non-febrile diseases, such as scurvy, diabetes, anæmia, due generally to renal changes of vascular origin; albuminuria in affections of the nervous system, epilepsy, delirium tremens, Basedow's disease; albuminuria in affections of the digestive canal, diarrhœa, intestinal obstruction; albuminuria from venous stasis, from cardiac lesions; albuminuria from respiratory troubles, where many elements have equal part; lack of oxygen, incomplete combustion of albuminoids; albuminuria of pregnancy, probably of circulatory origin.

In the second class, Gaston passes in review all the varieties of nephritis, forming two artificial groups in their relation to albuminuria; those with abundant albuminuria, due to acute diffuse acute and chronic parenchymatosus nephritis; those where glandular suppression is marked and where albuminuria is rare; due to the chronic interstitial variety. Finally, there are the amyloid and "localized" nephritis, the latter from tumors, cancer, tuberculosis, etc., both of which progress *pari passu* with albuminuria.

In giving a prognosis, it should never be neglected to study the relation between the albuminuria, the urinary peculiarities and the general condition of the patient. — Johnston, *Archives. Gén. de Méd.*

NEEDS HIGHER MEDICAL EDUCATION.—The following was sent us from Oklahoma (*Ex.*), and is the original copy submitted to a printer there. We have several practitioners in sunny Kansas who could do nearly as well:

"Located at Perkins and will visit Patient at ther home if so Desired.

"DR. C. WELTER and for Beast.

"Special attention will be taken in female complaints old or young also in Midwifery at an call and will treat cases of Rheumatssm and Eplective fitts and the Doctor will keep on hand a salv that he makes himseff good for man women alments warnted as good a salv that is in the united State for all soorse or swelling saddle soores of collar Bruises and will grow out a New hoof and the Doctor will make a syrup for coughs and could and Plurise in the side or lungs charges Reasonable Consultation Free."—*Med. Rev.*

A HINT IN PRESCRIBING.—It is well known that if is wished to prescribe digitalis in combination with the liquor or tincture of the perchloride of iron by means of the addition of a small quantity of dilute phosphoric acid, we can obtain a clear presentable mixture. But it is not, perhaps, equally well known that by adding small doses of the same acid, tinct. cinchon, co. and tinct. ferri. perchlor, can be prescribed equally well in combination. The sediment deposited being not greater than that found in the commonly ordered mixture containing tinct. cinchon. co. and spiritus ammoniæ aromat. It is advisable, as in the case of digitalis and iron, to see that the acid is added to either of the constituents before they are brought into contact. If this is done it will be found that the inky repulsive appearance otherwise presented will be avoided and a practically translucent mixture result.—*Med. Rev.*

STRYCHNINE IN VOMITING OF DEBILITY.—Dr. Smith cites a case where a British officer suffered intensely from obstinate vomiting and great debility as a sequence of malarial fever. He tried all known agents reputed in useful as such conditions, but they only had a passing effect. As a last resort, he tried strychnine in large doses, and was surprised to find that within twenty-four hours it had controlled the condition and continued to control it effectually so that, after a few weeks the patient, who was almost like a living skeleton, became fit to go about and do light duty. The movements of the stomach in the above case seem to have been due to derangement of the centres which preside over it, whereby the stimulus of food, which in health excites the physiological rhythmic contractions of that organ, in the diseased and inevaitble condition in question was sufficient to excite the act of vomiting.—*British Med. Jour.*

METHOD OF POULTICING.—Poulticing an ear may seem to be a simple operation, but there is, nevertheless, a right and a wrong way of doing it, and it appears that the wrong way is usually adopted. At least so says Dr. Albert H. Buck, of New York, in an article on aural therapeutics in the March number of the new *International Medical Magazine.* Dr. Buck says that while heat is one of the best remedies in painful inflammations of the middle ear, and the poultice is one of the best methods of applying heat, as usually put on the poultice has but little effect. What should be done, he says, is first to fill the external auditory canal with lukewarm water, the head resting on the unaffected side on the pillow. Then a large flax-seed poultice is applied over the ear as hot as can be borne. The column of water is thus kept warm and acts as a conductor of heat between the poultice and the inflamed surface.—*N. W. Lancet.*

DIET IN DIABETES.—The following rigorous diet is recommended by Dujardin Beaumetz, of Paris. Eggs, fish, meats of all kinds, poultry,

game, oysters, and cheese. All green vegetables are permitted except beets, carrots, and beans. Fatty foods are recommended, such as sardines in oil, herring, lard, goose-grease, ham-fat and caviar. All soups are permitted when made of meats in combination with cabbage, poached eggs and onions. Put no bread or toast in the soup. Only dietic breads are to be used, and saccharine in place of sugar. All starch foods are strictly forbidden, as sweet fruits, pastries, and chocolates. Patients may drink claret wine diluted with Vichy, but no poor wines, liquors or spirits. Daily exercise morning and evening in open air; fencing and gardening and other light exercise.—*Med. Mirror.*

FEEDING IN FEVERS.—Milk seems to be generally regarded as a fluid, and a very harmless looking fluid it certainly is when it is put into the stomach; but if it is to be digested and assimilated at all, it is very soon transformed into a bulky solid after it reaches the stomach. There are many patients to whom milk in any form is repugnant, and to some of these it is exceedingly difficult of digestion. It has been my practice for many years, in all kinds of illness, but especially in the presence of fever, to pay regard to the appetite and desire of the patient. If a patient is really hungry, solid food of a properly selected kind and in judicious quantity will rarely disagree with him. With hospital patients it is not always easy to ascertain whether they are really hungry. Many will profess hunger without being hungry because they suppose that they will recover more quickly if they eat freely. To them, of course, other solid food than milk should not be given, but if they are genuinely hungry, I believe it is safe to presume that the stomach is prepared again to resume its function, that gastric juice is again secreted, and that properly selected albuminous food in judicious quantity will be digested if you give it.

We are accustomed, I think, to have too great a dread of doing harm at the site of lesion in the ileum in typhoid fever by giving solid food. If I am correct in my opinion as to the inference to be drawn from hunger in a fever patient, there is even less likelihood of causing damage to an ulcerated ileum by giving finely divided egg, or beef or chop, to such a patient than by giving him milk; and my experience seems to justify the inference. It has been my practice for years to allow albuminous foods of these descriptions to such patients, even before the fever leaves them, under these conditions. I have at present under treatment several patients with typhoid fever whose temperature reaches 101°, 102°, and 103° F., daily, who are hungry, and who are receiving such solid food once a day. So far as I am aware, I do not have a large precentage of relapses or hæmorrhages, or other serious complications, or accidents in my practice than I did before I adopted this plan, or than my colleagues do who have not yet adopted it.

Even tea and coffee and beer are not allowed by many doctors; in my hands they have been very useful when given to those who have been accustomed to them in health and desire them in fevers. Well-cooked oatmeal is another very nutritious food that I allow under the same conditions as meat.

When the appetite fails, in consequence of the presence of fever, meat becomes more repugnant than any other food as a rule. Then it would be most injudicious to force it upon a patient; but the returning appetite, the awakening desire for meat, I believe to be nearly always an indication that the stomach is prepared to take care of it. That much is gained by maintaining the nutrition of fever patients needs not to be mentioned to the members of this Society. Of course, the necessity of giving an abundance of water is not to be lost sight of.

What I have said of feeding typhoid fever patients is equally true in other forms of fever. It is, in my judgment, a mistake to withhold solid food merely because a patient has fever, and it is incorrect to regard milk as a fluid food, as our knowledge of the physiology of digestion teaches us. Our knowledge of the form in which milk often appears in the fæces emphasizes this latter fact. Milk will always remain the most serviceable general food in disease, and especially in fever, largely because it is swallowed with much less effort than attends the taking of other foods; because it is the cheapest of the foods; because it requires little or no preparation, and because it is so commonly well borne. But where it fails to nourish the patient, where it is not well borne, where it cannot be taken, for any reason, it is well to remember that efficient adjuncts and substitutes are within reach.—Dr. Geo. L. Peabody, *N. Y. Med. Record.*

HYDRASTININ FOR UTERINE HÆMORRHAGE.—Gottschalk, Therapeutische Monatshefte, has already written of the use of this drug for uterine hæmorrhage, but now after more extended use speaks more confidently in its praise. Sometimes he uses it by subcutaneous injection and sometimes internally. More than $\frac{1}{6}$ of a grain three times a a day should not be given.

Of course, it is not to be supposed that we possess in hydrastinin a sovereign remedy for all possible forms of uterine hæmorrhage; only in certain kinds of menorrhagia and metrorrhagia can one be confident of success, and then it is chiefly palliative. The hydrastinin is not calculated to stop immediately a profuse uterine hæmorrhage. This is explained by its physiological pro-

perties. Hydrastinin acts exclusively upon the vascular system, especially upon the vascular walls, causing vascular contraction, but not a vascular closing, such as is necessary in puerperal hæmorrhage ; for this purpose it cannot replace ergot, which acts directly upon the muscle of the uterus. Ergot is preferable in all cases where a contraction of the uterine muscles is to be obtained. Gottschalk has also not found hydrastinin of special value in myoma or carcinoma, nor been able to observe even a lessening of the hæmorrhage in non-operative carcinoma.

Gottschalk summarizes his conclusion as follows, viz.

1. First of all, those uterine hæmorrhages which are traceable to a pronounced congestion of the uterus. To these belong, above all, the often very profuse menorrhagias of spinsters, in whom there is no pathological change in the condtion of the genitals. In some of these cases it is possible to obtain a pernament result, so that even after discontinuing the remedy the menstrual flow remains smaller.

2. Also in hæmorrhages, which have their pathological and anatomical cause in endometritis, hydrastinin will lessen the quantity of blood ; but here, according to his experience, the action is only palliative, not being sufficient alone to cure the local cause of the trouble.

3. For prophylactic or intramenstrual use, hydrastinin is useful before or during the first returning profuse menstruation after an abrasion of the uterine mucosa. It is well known that this menstruation, usually occuring after six weeks, is often very profuse. In the very cases where there was great loss of blood before the operation, it is of great importance to prevent further profuse hæmorrhage. This is possible if the treatment with hydrastinin is begun several days before the expected menstruation, and if necessary, continued during the duration of the menstruation.

4. Menorrhagias caused by retroflexio uteri are best treated by correction of the malposition ; but for cases of fixed retroflexion, where the reprosition is not yet possible, hydrastinin is a commendable remedy.

5. Secondary uterine hæmorrhages—*i. e.*, those caused by a change of the adnexa and their surroundings—offer a large field for the successful use of hydrastinin. To these belong the menorrhagia and metrorrhagia with pyosalpinx, oöphoritis, ovarian tumors, and exudations. Of course, the cause of the trouble is not influenced by the remedy.

6. Climacteric menorrhagias are much diminished by a faithfully carried out hydrastinin treatment.—*Brooklyn Med. Jour.*

FADS IN GYNÆCOLOGY.—The *curettage and drainage* fad claims our attention. This is a fad rejuvenated by asepsis, and very attractive it is. We have no fault to find with the operation *per se*, but have, on the contrary, expressed our admiration both by pen and in practice of its beneficial effect when indicated. But as a fad it is too commonly believed to be a "cure all" for every condition of disease which does not clearly indicate laparotomy. It is the same fad-cure which dogs the steps of hysterectomy and which bids fair to bring this operation into disuse in many of its necessary or at least very important applications.

Apostoli's treatment of fibroids has been and is, even to-day, a pronounced fad. The results claimed for it and believed of it by many of its votaries have been marvellous. It is true that unlike the majority of other medical fads it has not been, except when used for its electrolytic effect, of positive physical injury to those upon whom it has been used, and yet it is responsible for much disappointment and loss of time and money. When used for its electrolytic affect, it has proved a most dangerous weapon in the hands of many over-enthusiastic practitioners. Instead of proving a cure for fibrolds as once fondly hoped of it, it has now taken, in the opinion of the majority of gynæcologists, its proper place as an important aid in the treatment of many distressing symptoms connected with these tumors, whose growth it may retard and whose size it may even diminish —at least for a time. It is undoubtedly the best therapeutical agent at our command for this disease but like other good things it has been much misused in its character of fad.—*Brooklyn Med. Jour.*

STRETCHING THE SPHINCTER ANI IN MORPHINE POISONING.—All students of orificial surgery know how easy it is to control respiration by manipulation of the sphincter ani, and we can give our anesthetic with a feeling of security if our bivalve is in easy reach. I have resuscitated several patients almost moribund with chloroform by the use of my bivalve. But a few nights since, I had, to me, a unique experience, in dilatation of the sphincter ani for morphine poisoning. I was called to see a woman who had taken fifty-seven grains of morphine with suicidal intent. I found her in a stupor with pupils contracted, and slow, stertorous breathing. The neighbors had beaten her black and blue before I had reached her, and she gradually sank into a stupor from which she could not be aroused by the most severe switching. While giving an enema of coffee, the idea occurred to me, why not stretch the sphincter as we do in chloroform narcosis? Accordingly I at once introduced both thumbs, and separated them widely. The patient give a loud shriek, and took several good breaths. I sent for my bivalve, and for several hours I sat by her side, and as respiration would flag I would stimulate it by pressing together the

handles of the speculum. As a result of this treatment her life was saved. It has been my misfortune to see many cases of suicide, and I feel certain that several of them would now be alive had I known enough to use the speculum. It seems to me little less than a crime for the profession to neglect so simple and yet so effective a method.—Dr. Daily, *New York Medical Times.*

TERPENE HYDRATE IN BRONCHIAL CATARRH.—I am desirous once more of calling attention to the value of trepene hydrate in the treatment of affections of the bronchial and nasal mucous membranes. Its properties have been well known for many years, but in this country it has never been a popular remedy, and its claims seem to have been overlooked in favor of pure terebene and other similar compounds. It is a hydrate of turpentine, and is made by treatment of oil of turpentine with nitric acid and alcohol. It is a solid, and has somewhat the appearance of chloral hydrate. Its odor, which is slight, resembles that of pure terebene. The great difficulty in the way of its administration is that it is practically insoluble in water. It is usually said to dissolve in alcohol in the proportion of 1 in 10, but many specimens are far less soluble. On the continent, where it enjoys a high reputation in the treatment of bronchial affections, it is used as a popular remedy in the form of an elixir. For some months past I have prescribed it in a solution containing 5 grains to the half ounce, made up with simple elixir and flavored either with tincture of Virginian prune and syrup of tar, or with the aqua laurocerasi. For patients who cannot take sugar the elixir may be made with saccharine. Terpene not only relieves cough and lessens bronchial secretion, but is a diuretic, and has been used with advantage in neuralgia.—William Murrell, M.D., in *Br. Med. Jour.*

GONORRHŒAL RHEUMATISM—Dr. Brodhurst advises, as treatment for gonorrheal rheumatism, that the affected joints be wrapped in lint, covered with mercurial ointment; that they should be bandaged as firmly as can be borne, and that the patient should be brought rapidly under the influence of mercury, preferably by inunction. With such treatment, pain and swelling quickly disappear, and the joints resume their normal condition. At this stage passive motion of the affected joint is free, for lymph will have been deposited on the synovial membranes, through which adhesions form. These bands soon become firm, and resist any attempt that the patient can make to move the joint

This treatment, according to the author, never fails, if resorted to at the onset of the inflammatory stage. The knee, the hip, the elbow, and the shoulder, are most frequently affected by this form of inflammation. Anchylosis may result, not in one joint only, but in every articulation of the body. When, after the inflammation has ceased and passive motion has not been employed, adhesions remain and become firm, force is needed to restore mobility. This should always be used in the direction of flexion, since, when thus employed, no injury can accrue to any structure. Under some circumstances division of the flexor muscles is necessary.—*Ex.*

TREATMENT OF INCONTINENCE OF URINE.—Townsend records the result of the examination and treatment of 100 cases of incontinence of urine in an equal number of children of either sex. In 69 some cause, or probable cause, could be discovered. He gives an elaborate classification of causes, but draws attention to three: (1) Small meatus, relieved by nicking the meatus and stretching with scissors; (2) retained secretion in the groove behind the glands, with or without adherent prepuce; even after circumcision smegma and dirt may accumulate, and cause irritation; (3) excess of urates and over-acidity of the urine. He thinks that, had this last cause been looked for, it might have been found in many of the causes in which no cause was assigned. Treatment of co-existing dyspepsia is necessary; but, of 5 cases, 2 were relieved and 2 cured by the administration of Carlsbad salts. Townsend points out that in order to ascertain the true condition of the urine it is necessary to examine a specimen passed at home, as the excitement of a visit to a hospital or the surgeon's house may lead to the passage of copious dilute urine. By special inquiry as to the after-history of cases relieved or apparently cured belladonna, he found that relapse was very frequent.—*Brit Med. Jour.*

NOCTURNAL INCONTINENCE OF URINE AND PHIMOSIS.—In an article on the above subject by Dr. E. Loumeau, in the January number of *Annales de la Policlinique de Bordeaux*, the writer divides the different varieties of incontinence under five heads:

1. Incontinence of urine of purely psychopathic origin. (Theory of T. L. Petit.)
2. Incontinence of urine due to vesical irritability. (Theory of Trousseau.)
3. Incontinence of urine due to a faulty contractability of the sphincter vesicæ, or to anesthesia of the urethra. (Theory of Guyon.)
4. Incontinence of urine due to paralysis of the bladder and sphincter.
5. Incontinence of urine due to epilepsy.

Under the second head—vesical irritability—the author mentions the following causes: (1) Peripheral irritation, such as phimosis, atresia of the meatus, hypospadias, oxyurides hæmorrhoids, fissures, etc. (2) Exaggerated reflex excitability

of the cord. The author regards phimosis as the most prolific agent in this classification. Trousseau appears to have been the first to call attention to this fact in 1860, and since then Forni, Tuffier, Beard, Bouisson, Duplay, Schwartz, Birger, and many others, have called especial attention to this form of enuresis.—*Buffalo Med. and Surg. Jour.*

PNEUMONIA WITHOUT COUGH.—A young man, aged 22, contracted the above mentioned disease, which, when I was first sent for, was in the acute inflammatory stage, with high temperature (104° F.) and delirium. The pneumonia ran its usual course of hepatisation and resolution, and all the symptoms—fine crepitation at the base of the lung, tubular breathing, and dulness—were well marked. But one symptom was absent — cough. Each morning when I asked the nurse whether the cough had been troublesome, the answer was that "he had not coughed at all," and as far as I could learn the patient was never troubled in that way all through his illness, except during the primary stage of delirium, when he kicked about somewhat, and then it was very slight. I could never ascertain that he expectorated more than once or twice after the first stage had passed, and the amount would scarcely fill a thimble. Now, he was a man of a particularly phlegmatic disposition, and during his illness he would lie perfectly still and quiet, never speaking to anyone, and never moving voluntarily, and this I take to be the cause of the lack of a prominent symptom, and it suggests to me that a pneumonic case may be saved a considerable amount of pain and distress by insisting upon absolute prohibition from talking, and the minimum amount of movement.—Robert Aldous, in *Br. Med. Jour.*

A GASTRIC JUNK SHOP.—In making a post-mortem examination of the remains of a female lunatic who died lately in the Key Asylum, the doctors had an extraordinary experience (*Ex*). They found in the woman's internal organ's three German silver teaspoons, which had been missing for a month prior to her death, as well as a piece of iron used to connect the handles of a door lock, and two triangular pieces of glass. It also transpired that three days previously another surgeon had abstracted a flat piece of steel five inches long and nearly an inch wide from the throat of the diseased. Yet none of these strange articles of diet had anything to do with her death, which was caused by disease of the brain.—*Med. Review.*

BURDETTE ON THE LOT OF MAN.—Man, born of woman, is of few days and no teeth. And indeed it would be money in his pocket sometimes if he had less of either. As for his days, he wasteth one-third of them. And as for his teeth, he has convulsions when he cut them. And as the last one comes through, lo! the dentist is twirling the first one out; and the last end of that man's jaw is worse than the first, being full or porcelain and a roof-plate built to hold blackberry seeds.—Burdette, in *Med. and Surg. Rep.*

CASCARA SAGRADA IN TAPEWORM.—In the *Therapeutische Monatshefte*, cascara sagrada is highly recommended in the treatment for tapeworm, by Stephens. He uses the following prescription:

R—Fl. ext. cascara sag., . . . 24 grms.
Syr. orange peel, ... 100 grms.

Sig.—Three times daily, a teaspoonful; for children, three times daily, a half teaspoonful.—*Med. Age.*

CLAIRVOYANCE IN SYRACUSE.—We read (*Med. Rev.*) in the Brooklyn *Medical Journal*: The following is a copy of a letter written to a patient living in Brooklyn by a Syracuse, N. Y., clairvoyant. It would seem that there is an opportunity to enforce the Medical Practice Act in the City of Syracuse:

SYRACUSE, N. Y.

"I examined your belt, and tell you herewith what I seen in the examination. Liver and stomach bad, water on the heart and blood inflammation in kidneys and bowels, catarrh in blood and nerves, and poison in blood, pimples in the lungs and nervousness. It will take three months to cure you. Hoping to hear from you soon, I remain, respectfully yours,

———

"The charges are fifty cents for reading the belt, the medicine is one dollar and twenty-five cents. If you don't wish to doctor here you can write and I will send the fifty cents back."

DR. BREITBACH, of Badkrenscha, Dresden, Germany, November 17, 1892, says:—I have tried Bromidia in a case of insomnia, caused by severe neuralgia, and the result was most satisfactory. Before I prescribed this preparation the patient always asked for injections of morphia, but never afterwards. I think that Bromidia will be of great service in cases where one wants to wean a patient from the habit of taking morphia. I shall certainly continue to prescribe the preparation.

The phamacists of Danville, Va., have made a good move in determining among themselves to keep one store open in rotation on Sunday—all others of the city being kept closed except for two hours in the morning and two hours in the evening of that day. This allows the drug clerks much needed rest, and yet amply supplies all the demands of those who may need medicines.

THE CANADA LANCET.

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SURGICAL TREATMENT OF GENERAL PARESIS OF THE INSANE.

The statistics of many insane asylums for the past ten years show a noteworthy increase in the number of patients admitted affected with general paresis, and more than twenty-five per cent. of the deaths in these institutions may be attributed to this disease. This increase of general paresis and the high mortality from it naturally stimulate investigation regarding the possibility of discovering some satisfactory method of treatment. Various remedies have been tried, with more or less satisfaction to their proposers, but the progress of the disease has been only temporarily arrested at best. General paresis is a disease of the brain cortex, chiefly limited to the fronto-parietal areas on the vertex. The researches of Locs, Gattz, and Ferrier have shown that these are the areas chiefly concerned in the higher mental processes, therefore the disease is manifested by mental and motor disturbances. Clouston, Bedan-Lewis, and others think that there is a degeneration of the nerve elements of the cortex, caused by a transfusion of the fluid contents of the cortical arteries into the circumvascular canals and thence into the pia-arachoid spaces into which these canals open. Because of the vascular inflammation of the cortex, causing an interference with nerve-cell nutrition and the exudation of an abnormal fluid causing pressure on the brain, surgical interference has been attempted to give relief to the tension.

A case was reported in the *British Medical Journal* for November 16th, 1889, by Dr. Clayre Staine, in which relief was effected by this operative procedure. The case was one of general paresis, in which an aperture of an inch and a half long by three quarters of an inch wide was made on the right side of the skull over the central sulcus. The operation was performed on July 28th, 1889, by Mr. Cripps, and the patient was up on the tenth day. The mental improvement was immediate and decided. This improvement continued, but the motor symptoms did not improve, although there was no recurrence of convulsions until six months after the operation, when the patient died in a convulsive attack.

A second patient was operated on some months later, and there was subsequent temporary improvement in the mental condition, but none in the motor derangement. It often happens that the same idea strikes different observers at the same time, and Dr. J. Batty Tuke reported in the *British Medical Journal*, for January 4th, 1890, a case under his care in which an operation had been done on May 17th, 1889. In this patient also the mental condition was temporarily improved, though subsequently his original symptoms recurred. More recently Mr. John Macpherson and Mr. David Wallace have reported in the same journal for July 23rd, 1892, five cases of general paralysis in which partial crainectomy was performed. In three cases the left side of the skull was opened and a bilateral bony excision was performed. Surgically the cases progressed uninterruptedly to recovery, and except in one case, there was an improvement in the mental condition lasting from one to three weeks. The authors think that the relief of the pressure by the removal of the fluid, as well as the greater freedom for cerebral expansion resulting from the removal of the bone, combined to produce the change they noted. As the scalp cicatrized and the osseous aperture became filled with fibrous tissue, the patient gradually sank back into his former condition. They think that the operation is indicated in the early stages of the disease in order to be of material benefit.

Dr. C. G. Wagner has reported in the *American Journal of Insanity* for July, 1890, a case in the country, in which he operated on a patient, in an advanced stage of general paralysis. The oper-

ation was followed by an impaired mental condition that lasted for several weeks. From these cases, followed by an improved mental condition. We draw our own conclusions. The operation in skilled hands has not resulted in any untoward symptom, and a recourse to it in the early stages of the disease, with subsequent treatment, may afford more permanent relief.

ONTARIO MEDICAL ASSOCIATION.

Editor CANADA LANCET.

SIR.—As will be seen from a reference to the advertising columns the date of the 13th annual meeting has been postponed from the 7th and 8th to the 21st and 22nd of June. The Executive has been led to this step for the reason that the American Medical Association holds its annual meeting in Milwaukee on the 6th, 7th, 8th and 9th June. Another large gathering of physicians will take place in Omaha during the week previous, in connection with the National Association of Railroad Surgeons. Neither of these meetings would interfere with the annual meeting of the Ontario Medical Association under ordinary circumstances, but this year a special effort is being made to organize a large excursion for medical men to the Chicago Exhibition in connection with one or both of the above gatherings, and the railroad authorities are offering persuasive inducements in railroad fares. The Executive in consequence thinks that it would best advance the interests of this Association by postponing the annual meeting two weeks beyond its regular date. The attention of the members is drawn to the change, in order that they may make their plans for the summer in such a way as to allow them to attend this meeting.

D. J. GIBB WISHART,
Gen. Sec.

Toronto, March, 1893.

SOME REMARKS ON THE TREATMENT OF PAIN AND INSOMNIA.—According to Dourdoufi (*Le Méd. and Surg. Rep.*), pain and insomnia are morbid phenomena of much importance, especially from the point of view of their practical signification. They exist in the clinical picture of a large number of diseases both acute and chronic. In the chronic diseases the issue of the pathological process depends largely upon the intensity of these symptoms and the possibility of limiting their deleterious influence. A rational medication of pain and insomnia, based upon the recognition of their pathogeny facilitates the rôle of the physician in his struggle with the disease. Dourdoufi calls attention to a simple method of treating pain in general, and cephalgia especially.

1. In the case of cephalgia if it does not depend upon organic lesions of the nervous system, we have in *percussion with the fingers, or with the finger* upon the parts which are the seat of the pain, a simple and sure method of causing the pain to disappear almost immediately. In the examination of a patient who complained of atrocious pain in the head, Dourdoufi practiced percussion of the skull with the finger, for the purpose of clearing up the nature of the cephalgia. This examination was followed in two or three minutes by an entire disappearance of the cephalgia. The experiment was repeated in a number of instances, and always with the same positive result. The percussion may be made with one or several fingers, taking the precaution not to occasion disagreeable sensations to the patient. This may be accomplished by controlling the intensity of the percussion according to the sensitiveness of the patient, and gradually increasing the force of the blows. As a general rule the percussion should never be too intense. This method ameliorates and even causes the entire disappearance of every form of headache of a functual nature, without organic lesion; hemicrania, and headaches of neurasthenic, hysterical, and anemic patients. The same method has been applied to the muscular pains of neurasthenics with the same positive result. Percussion with the fingers for three to five minutes has caused the muscular pains to disappear in cases where the application of eletricity (galvinization and franklinization) and massage have remained ineffectual. 2. Dourdoufi has also obtained very satisfactory results in the treatment of *rebellious insomnia* by another therapeutic method. A young man, thirty years of age, who had been tortured for several months by an insomnia for which sulphonal (2 grammes) and chloral (2 3 grammes) had been used without effect, applied to him. He advised his patient to take, after retiring, some cold milk (previously boiled)

three teacupfuls, and if possible more. This was taken every evening during the first hour and a half after retiring, the amount varying from three to six cupfuls. The result was very good, a calm sleep following, which lasted on an average eight hours. It was worth while to note that this result was obtained in an individual in whom sulphonal and chloral had not produced the slightest somnolence.

THYROID EXTRACT IN MYXŒDEMA.—The series of papers and illustrated cases which have been published during the past eighteen months in the *British Medical Journal*, will have sufficed to prove to our readers that, in the treatment of myxœdema by thyroid extract, scientific medicine has achieved one of the most striking and significant triumphs which has ever been won in the field of practice. Much interest was excited at the meeting of the Clinical Society last week by the presence of a series of patients who had been treated in this way. Four of them had been treated by Dr. Arthur Davies with thyroid extract in powder, one powder (corresponding to an eighth of an entire thyroid from the sheep) being given every day in tepid beef tea. All the patients had rapidly improved, one special indication of the improvement being the somewhat rapid loss of weight, which commenced as soon as the treatment was begun. Another patient had been treated by raw gland given twice a week, at first with half a small gland for a dose, and lately with a whole gland daily. This was too large a dose, however, for after the administration of five glands in the above manner toxic symptoms were developed, accompanied by extreme feebleness of the heart; whereupon the quantity of the gland taken was reduced. Dr. Calvert's patients had been treated with half a thyroid three times a week, fried sufficiently to render it palatable. Dr. G. R. Murray (Newcastle), detailed his experience of glycerine solution of thyroid juice. He now injects very slowly under the skin 15 minims of a solution, of which 90 minims correspond to one sheep's thyroid He had found that to produce the same effect four times as much had to be administered by the mouth as was required when the remedy was injected beneath the skin. The treatment occupied two stages, the first lasting until the subsidence of the symptoms; the second, when a much smaller dose was required, was designed to maintain the patient in health. The actual dose that sufficed for this purpose was a fortnightly injection of 20 minims. The very great benefit accruing to the patients, in whatever way the remedy might have been administered, was very evident, and, as Dr. Ord observed, was all the more gratifying from the fact that two years ago the disease was regarded as incurable.

THE AMERICAN GIRL.—This young compatriot of ours (*Harper's Bazar*) no longer laces herself to breathlessness and a red nose and a pimpled forehead, pushing what flesh there is into regions where it makes deformity; she wears corsets, but only to outline and partially support, never to press or pinch, and thus her digestive organs are kept free to do their work and assist in preparing the rounded and velvety surfaces, the glow in the eye, the blush upon the cheek, the dye of the soft lips; for, unpoetical as it appears, the laboratory of beauty is in the stomach. In addition to all this, the American girl is no longer ashamed of her foot. She used to think it a disgrace if she wore a larger shoe or boot than a No. $2\frac{1}{2}$; if she wore fours, she managed them; if she wore fives, she hid her foot. Now she understands that it is a law of statuesque beauty that a body should have an extremity apparently equal to its support —a woman a foot big enough to stand on, and *bien chaussée*, *bien gantée*, she never dreams of lengthening her skirt because her shoe is a six or seven, or of keeping her hands out of sight because they did not stop growing when she was ten years old. Owing to this last act of wisdom she can walk with freedom where she will, without pinched feet or any of the discomfort that urges her to sit still; and thus she takes with delight the exercise which does so much for her, which fills her lungs with fresh air, and oxygenates her blood, and gives it all its life and sparkle wherever its effects are visible. After all, it is common-sense, the appreciation that nature says how much to eat and what to wear that has reformed an ailing and early withered woman into a beauty of the old Greek type.

OPERATIVE TREATMENT OF WANDERING KIDNEY. —Herezel (*Beitrage zur klin. Chir.—Br. Md. Jour.* concludes a report on the surgical treatment of

wandering kidney in Czerny's clinic, with the following summary: 1. In every uncomplicated case of wandering kidney recourse to operation is justifiable when internal treatment, massage and the use of belts have failed. 2. The kidney should be sutured after exposure by the lumbar incision, the fibrous capsule being freely opened and the cortcial substance of the organ well exposed. 3. The parenchyma should be traversed by catgut sutures, and the capsule with sutures either of catgut or of silkworm gut. The most favorable condition for primary healing is the apposition and union of broad raw surfaces. In order to insure this, divided muscular layers must be brought together by catgut sutures, the wound should not be drained, and the patient remain in bed for three weeks at least after the date of operation, 4. The intra-peritoneal method of fixation is to be reserved for those cases in which the diagnosis is doubtful, and when it is necessary to perform exploratory laparotomy in order to throw light on the condition of things. 5. Nephrectomy is indicated only in cases in which the wandering kidney is the seat of a morbid growth, or is prevented by adhesions from being brought back to its normal position. 6. Even after repeated failure of an operation for suturing the kidney, the surgeon may still hope to obtain success by practising some better method.

SULPHATE OF COPPER IN ENDOMETRITIS.—*Le Bull. Générale de Therap.* publishes an interesting contribution to the study of the therapeutic action of sulphate of copper in the treatment of endometritis. The cases reported are 10 in number, of which 1 was of a catarrhal, 1 of post-puerperal, 1 of puerperal, and 7 of a blennorrhagic character. The ages of the patients varied from sixteen to twenty-three years. In all of these cases the remedy in question was, in the form of pencils, applied locally. The results, as a whole, were highly satisfactory. The author affirms that the drug acts superficially, and does not produce the deep scars caused by chloride of zinc; that its effects are less powerful but more certain than those of the latter medicament. Again, the copper did not produce atresia of the uterine neck. All the cases treated, especially those of the blennorrhagic nature, failed to be benefited by other therapeutic measures, but were cured under the copper treatment in a comparatively short period of time—that is, in from four to twenty-five days. The employment of the remedy was *never renewed;* one application was always sufficient to produce the desired effect. The author further recommends, before the use of the copper treatment, the observance of the following rules: (1) antisepsis of the genital organs for two or three days; (2) rest in bed; (3) the administration, one day previous to the copper application, of bromide of potassium, to be repeated on the following day, also, if necessary, a uterine injection of chloral.

ILLEGITIMACY IN GREAT BRITAIN.—Statistics concerning illegitimacy, published by Dr. Albert Leffingwell, show (*Med. Rec.*), that in the matter of sexual morality the Irish are superior to all other peoples. The ratio of illegitimate births among the Irish is only 26 per 1,000, among the English 48 per 1,000, and among the Scotch 82 per 1,000. Next to the Irish come the Russians, with 28 per 1,000, the Dutch have 32 per 1,000, the Italians 74 per 1,000, the French 82, or the same as the Scotch. In Sweden, Saxony, and Bavaria the rate is still higher, and ranges from 100 to 140 per 1,000. Austria is at the opposite pole from Ireland with 146 per 1,000. Dr. Leffingwell discusses the accredited causes of illegitimacy, for example, poverty, ignorance, and the contamination of great cities, but only to find that these statistics belie them all. Ireland, for example, is one of the poorest countries; Russia is not only a poor, but an extremely ignorant country. The influence of great cities appears to be equally fallacious. Neither education nor religious creed account for the facts. Scotland, for example, is a very highly-educated country; Italy and Austria are Catholic as well as Ireland. Dr. Leffingwell comes to the conclusion that race and heredity, the marriage laws, social usage, and similar circumstances are important factors in the case.

THE DIFFERENT FORMS OF CARDIAC PAIN.—Dr. Chew (*Med. News*) states that "cardiac pain," or "pain in the heart," is found as a concomitant in three different conditions: Angina pectoris; any condition which brings about an obstruction or resistance to the flow of blood through the arterioles, such as arterio-sclerosis;

and third, cardiac dilatation. When these three forms of disease are considered together, and an endeavor made to co-ordinate them as their cause, it is quite possible that the chief factor in the production of pain common to all of them is pressure brought to bear upon the cardiac nerves or upon the cardiac ganglia themselves. The connection between these ganglia and the cervical and brachial plexuses give a ready explanation of the extension of the pain to the arms that may occur in any form of cardiac pain. In the first, or strictly paroxysmal form, true angina, the pressure may be occasioned by the sudden tension of the arterioles; in the second form by the general sclerotic condition of the vessels; and in the third form with dilatation of the heart, by the attenuation of the heart-walls.

MEMORIZING DOSES.—Dr. G. A. Wiggins gives (*Pharm. Rec.*) the following rules:

1. The dose of all infusions is 1 to 2 ounces, except infusions of digitalis, which is 2 to 4 drachms.
2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5.
3. All wines, from ½ to 3 fluid drachms, except wine of opium, which is 5 to 15 minims.
4. All poisonous solid extracts you can give ½ grain, except extract of calabar bean, which is 1-12 to ¼ grain.
5. All dilute acids, from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims.
6. All aquæ, from 1 to ounces, except aqua laurocerasus and aqua ammonia, which are 10 to 30 minims.
7. All medicated syrups you can give 1 drachm.
8. All mixtures, from ½ to 1 fluid ounce.
9. All spirits, from ½ to 1 fluid drachm.
10. All essential oils, from 1 to 5 minims.

This of course applies to the U. S. P.

POISONING BY SULPHONAL.—Kast (*Arch. f. exp. Path. u. Pharm.*, from a study of the published cases in which poisonous effects have followed the use of sulponal for a prolonged poriod, gives the following as characteristics of the condition of chronic poisoning by the drug: (1) Disturbances of digestion, as vomiting, diarrhœa, or constipation; (2) of the nervous system, as ataxy and feeblness of the limbs, ptōsis, and ascending paralysis; (3) ischuria, oliguria, sometimes albuminuria, or the presence of hæmatoporphrin. These are the chief signs. Kast is of opinion that a cumulative action of the drug produces, instead of transitory diminution of the nervous excitabiiity, a permanent depression thereof, just similar to that caused by a single large dose. He finds the dose best calculated to produce a hypnotic effect is about 30 grains for a man and half the quantity for a woman. These quantities should be the maximum daily doses. He advises also that an interruption should be made from time to time in the use of the drug, so as to ensure its elimination. Loss of appetite, vomiting, or pains in the stomach he regards as indications for the immediate discontinuance of the remedy.

SALOL FOR GONNORRHŒA.—Dr. C. Underwood says (*West. Med. Rep., U.S.*) that salol can reduce the duration of gonnorrhœa to the lowest limits. The method consists in the regular employment of from forty to sixty grains of salol through the day. I order my patients to have four doses of from ten to fifteen grains each, taken immediately on rising in the morning, at 11 o'clock a.m., 4 o'clock p.m., and the last thing on retiring to bed at night. This I ordered in a powder or compressed tablets. Having known that many of these tablets passed through the intestinal canal without being absorbed and in the form they were administered, I am now using the drug in a powder form. It is tasteless, and is not complained of by patients. The dose is begun, unless the patient shows that the drug disagrees with him, with sixty grains a day, continued until the discharge has become very meagre. Then it is gradually lessened. The author claims that better results follow this method than any other.

SUBCUTANEOUS INJECTIONS OF NORMAL NERVE SUBSTANCE IN EPILEPSY AND NEURASTHENIA.—Babes (*Deutsch. Med. Woch.—Br. Med. Jour.*)—records the results of this method of treatment in a large number of patients. Normal brain and spinal cord were made into an emulsion with broth in the proportion of 1 gramme of the nerve tissue to 5 grammes of broth. Of this 4 to 5 grammes were injected in the abdomen or flank five to six times a week in epileptics, and four to five times a week in neurasthenics. A large number of epileptics were cured, and others greatly improved.

Good results were also obtained in melancholia, neurasthenia, and cases of slow heart action. A case of sleeplessness, in which all known narcotics, even in large doses, had failed, was cured after three injections. A patient with cephalalgia of over a year's duration was remarkably improved after seven injections. Syncopal attacks and a paralytic condition in another patient disappeared after sixteen injections. Sciatica of a month's standing was cured by three injections.

PEOPLE who rejoice in the ability to live comfortably with a minimum of sleep usually display marked intolerance of the habits of the average human being who requires a more liberal allowance of "nature's sweet restorer." (*Hosp. Gaz.*) Only lately a certain eminent physician expressed the deliberate opinion that a large proportion of our ailments are due to over-indulgence in sleep, reminding us of the oft-quoted maxim of George III., of blessed memory—"Six hours for a man, seven for a woman, and eight for a fool." Personally, I resent this uncalled-for attack on my habits, for I infinitely prefer Sir James Sawyer's pithy injunction about going to bed when one can, and getting up when one must. Assuredly very few practitioners in the great metropolis suffer from an excess of sleep, and most of us would be the better if we adopted the sage advice to spend one day a month in bed.

INCOMPATIBILITIES OF ANTIPYRINE.—The following drugs (*Gaz. des Hop.*), are chemically incompatible with antipyrine, precipitating it from an aqueous solution: 1, Carbolic acid in strong solution; 2, tannin and substances containing it; 3, tincture of iodine; 4, the chlorides of mercury. The following decompose antipyrine when rubbed up with it dry in a mortar: 1, Calomel, which forms a toxic compound with antipyrine; 2, naphthol *b*; 3, chloral, which with it forms an oleaginous liquid; 4, bicarbonate of sodium; when this is mixed with antipyrine, an odor of acetic ether is given off; 5, salicylate of sodium, which like chloral forms an oleaginous mixture; 6, the salts of quinine and of caffeine, the solubility of which is increased by antipyrine.

EFFECTS OF ANTISEPTICS ON VIRILITY.—Attention is called by Dr. Van Den Corput (*Rev. Therap.: Med. and Surg. Rep.*) to the diminution of virile power which he has observed in patients to whom he had prescribed antiseptics, such as salicylic acid, quinine, menthol, carbolic acid. The author supposes that these antiseptics act on the blood elements, and on the seminal cells as on inferior organisms. The spermatozoids become in effect completely immobile under the microscope, like all the leucocytes, which lose their amœboid movements, and can no longer effect their migrations. Salicylic acid acts in the same manner upon the ovary, and causes the lengthening of the menstrual period.

TREATMENT OF ERYSIPELAS.—Dr. Alex Winkler (*Therap. Monats.*), recommends painting the affected parts every three hours with:

Tannic acid, ...	1.0—1.5
Camphor, ...	1.0—3.0
Ether, ...	8.0

This removes the fever in a few hours and a cure is effected in two or three days. In place of the above we may use:

Camphor, ...	25.0
Ether, ...	50.0

This is to be brushed on every five hours. Dr. Ringier has used the above formula with excellent results in lymphangitis, in erysipelas ambulans and mild cases of erysipelous of the extremities. In cutaneous diseases having an erysipelatoid character, it also proved very useful. Such cases occur especially in the practice of the country physician, and are probably due to infection resulting from insignificant traumatisms. To prevent deposition of tannin from the above mixture, Ringier adds a little alcohol (5.0—6.0 tannin, 6.0—7.0 camphor tritur., 50.0 ether, and 5.0 spirit vini rectificat.). This is applied every two hours.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.—The third annual meeting will be held in Chicago on September 12th, 13th and 14th, 1893. A cordial invitation is extended to all members of the profession interested in electro-therapeutics. Arrangements for special rates on railways and at hotels are in progress. The Committee of Arrangements will be obliged if those who intend being present at the meeting will send their names, the class and amount of accommodation required, titles of papers to be presented, applications for membership, etc., at as ealy a date as possible.

SEA SICKNESS.—A preventive measure proposed by Dr. Ames Brunton in the *British Medical Journal* (*N. Y. Med. Rec.*), of recent date consists in the applying of a leather strap around the lower part of the thorax and epigastrium. It is put on previous to going on board, and is drawn very tight, and must be kept on till the traveler gains his "sea-legs." This hint, Dr. Brunton says, he "obtained from a gentleman who was previously a martyr to sea-sickness, but now in his frequent journeys across the Channel makes them with comfort. If necessary, a pad over the epigastrium can be added.

JADELOT'S LINES.—The following, known as "Jadelot's Lines," are said to be of value as an aid to diagnosis in diseases of children: *1. Brain and Nervous System.—Oculo-Zygomatic Line.*—Begins at inner canthus of eye, passes downwards and outwards beneath lower lid, and is lost on the cheek, a little below the malar projection. *2. Abdominal—Nasal Line.*—Rises at the upper part of the ala of the nose, passes downwards, curling around the corner of the mouth. Always present in gastro-enteric disturbances. *3. Thoracic—Labial Line.*—Begins at the angle of the mouth and runs outward, to be lost in the lower part of the face.

SNUFF FOR ACUTE CORYZA.—Tissier recommends the following snuff for the relief of a cold in the head (*Med. World*):

℞.—Menthol, ... gr. vj.
Powdered boracic acid, . . ℥ij.
Subnitrate of bismuth,
Powdered benzoin, ... āā ℥iij.

A good-sized pinch of this may be snuffed up five or six times a day. If desired, one grain of morphine and a half drachm of calomel may be added to the mixture, the addition apparently increasing its efficacy in certain cases.

ASEPTIC WOUND TREATMENT.—Dr. A. Neuber (*Centralbl. f. Chir.*) has given up the use of drainage, which he regards as a necessary evil of the antiseptic method. He employs strict aseptic precautions during operation, fills the wound with boiled gauze, and sutures its entire extent except a small space. Through the latter he withdraws the gauze, together with blood, air, etc., from the interior of the wound, at once sutures the opening and applies a dressing consisting of a sponge enveloped in sterilized gauze and fixed by strips of adhesive plaster or a muslin bandage. The dressing remains *in situ* until the time when healing is expected, and after its removal the wound is usually found completely healed.

ASTHMA.—Dr. Kinnear (*N Y. Med. Jour.*,) expresses the view that the asthmatic paroxysm is dependent upon hyperemia of the pneumogastric centre in the medulla, induced by various influences. A rational mode of treatment would be directed to the control of the blood supply to the nervous system. With this end in view, it is recommended that an ice-bag be applied to the spine for longer or shorter periods. Such practice has been attended with good results, immediate and remote, the paroxysm being terminated, and concomitant symptoms being relieved.

THE USE OF CHLORAL IN THE TREATMENT OF BOILS.—M. Sphen (*Bull. Gen. de Therap.*) recommends very highly, as far superior to all other treatment, the use of chloral externally in this troublesome class of affections. He directs that the boil be kept covered with a tampon of cotton-wool soaked in the following solution:

℞—Chloral hydrat. . . . . ℥ iiss.
Aquæ
Glycerin. . . . . āā f℥v.—M.

ABRASIONS—CUTANEOUS DISORDERS.—This antiseptic adhesive ointment (*Med. Brief*) protects the surface of the wound and is of especial service in dressing wounds of the face, and valuable in cutaneous eruption, excoriation and ulceration:

℞.—Zinci oxidi, ... 5 grains.
Zinci chloridi, ... 20 grains.
Gelatinæ, ... 6 drachms.
Listerine, ... 7 ounces.

M—The gelatine to be dissolved in listerine by aid of gentle heat.

IMPORTANT TO REMEMBER.—The return of the menstrual flow, according to Thomas, after the menopause usually means malignancy, and in such cases the patients should be subjected to careful examination at once.

RHEUMATIC PAINS.—Rhus toxicodendron is recommended by several writers in the American Therapeutist as particulatly efficacious in sciatica

and other forms of neuralgia occurring in individ- with a rheumatic tendency.

A GEORGIA EDITOR WANTS HIS MONEY.—The following (*Baltimore Sun*) is from the pen of a Georgia editor who evidently had strong feelings on the subject: "The wind bloweth, the water floweth, the farmer soweth, the subscriber oweth, and the Lord knoweth that we are in need of our dues. So come a-runnin' ere we go a-gunnin'; we're not funnin'; this thing of dunnin' gives us the blues."

PAGET'S DISEASE OF NIPPLE TREATED WITH FUCHSIN.—Geo. J. Elliott (*Jour. of Cut. and Gen. Urinary Diseases*), obtained favorable results with an ointment of fuchsin, three or four grains to the ounce of equal parts of lanolin and cold-cream ointment. It is not brought forward as a curative agent, but as a remedy which stays the progress of the disease, relieves the itching and soreness, aids cicatrization, and is useful where operative interference is not permissible.

FOR coryza, a writer in *L' Union Méd.*, suggests:

R.—Naphthaline in impalpable powder, ʒ vj.
Powdered boric acid, ... ʒ vj.
Powdered camphor, ... gr. xv.
Extract of violets, ... gr. xv.
Essence of roses, ... gtt. xx.
Sig.—Mix and use as a snuff.

CHLOLAGOGUE TABLETS.—Huchard, (*Med. and Surg. Reporter*) recommends:

R.—Sodii Benzoat.
Sodii Salicylat.
Pulv. Rhei. Rad. . . . . āā ʒj
Ext. Nuc Vomicæ. . . . . gr. v
M.—Ft. tabellæ, No. xx. Sig. One at each meal.

THE ELEVENTH INTERNATIONAL MEDICAL CONGRESS.—All communications relative to the approaching Rome Congress should be addressed to the Segretaria Générale del' XI. Congresso Medico Internazionale, presso la Clinica Medica, Ospedale di Pammatone, Genoa.

In puerperal eclampsia (*Lancet-Clinic*), when the spasms are apparently under control, look out for a return of the spasms if the pupil remains contracted.

SORE NIPPLES.—Dr. Oehren recommends (*Ther. Monats.*) ichthyol in the treatment of sore nipples, according to the following formula:

R—Ichthyol, ... 1 drachm.
Lanolin, ... 1¼ drachm.
Glycerin, ... 1¼ drachm.
Olive oil, ... 2½ drachms.

Books and Pamphlets.

A MANUAL OF BACTERIOLOGY. By George M. Sternberg, M.D., Deputy Surgeon-General, U.S. Army, Director of the Hoagland Laboratory, Brooklyn, N. Y., etc. Illustrated by chromo-lithographs and heliotype plates, and 268 engravings. New York: Wm. Wood & Co. 1892.

This is a most complete and systematic treatise upon the whole subject, brought up to date by the pioneer and best authority in the subject this side the Atlantic. The work seems to be in all points of view, both the publishers' and the author's, complete. The indexes are exhaustive, the bibliography most thorough, correct, and ample and the plates and illustrations perfect. The systematic and scientific handling of the subject is pleasant to contemplate, and even to the general practitioner, who, perhaps, has not seen a bacillus since graduation, much of the book would be most interesting, for instance, the experiments of the brothers Klimperer, in 1891, with pneumotoxin, and the bearing of their "anti-pneumotoxin" upon Metschnikoff's theory of immunity. It would hardly seem fair to give so important a new work a mere "table of contents" criticism, but its scope is well-seen in the table of contents. Part I, deals with classification, morphology, and general technology, *i. e.* methods of staining, culture-methods, inventative experiments, photography, and so on. Part II, is a treatise upon general biological characters, structure, motion, re-production, products of growth (ptomaines, etc.), antiseptics, disinfectants, etc. Part III, discusses every conceivable variety of pathogenic bacteria, apart altogether from merely medicinal or surgical varieties, from the laboratory point of view solely; while Part IV, discusses likewise the saprophytes or non-pathogenic bacteria. A more complete text book for the student of bacteriology could not be desired.